

STIC Search Report

EIC 1700

STIC Database Tracking Number: 218486

TO: John Hardee

Location:

Art Unit : 1751

March 16, 2007

Case Serial Number: 10/534315

From: Mei Huang

Location: EIC 1700

REMSEN 4B28

Phone: 571/272-3952

Mei.huang@uspto.gov

Search Notes

Examiner Hardee,

Please feel free to contact me if you have any questions or if you would like to refine the search query,

Thank you for using STIC services!

Mei Huang

218486
Access DB# 217337

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: HARDEE Examiner #: _____ Date: 2/6/07
Art Unit: 1751 Phone Number 30 2538 Serial Number: 101534, 315
Mail Box and Bldg/Room Location: 9A41 Results Format Preferred (circle): PAPER DISK E-MAIL 2

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: _____ SCIENTIFIC REFERENCE BR
Inventors (please provide full names): _____ Sci & Tech Inf - Cntr

MAR 6 RECJ

Earliest Priority Filing Date: _____ Pat. & T.M. Office
For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

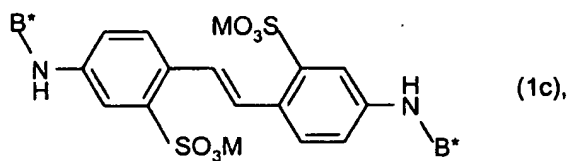
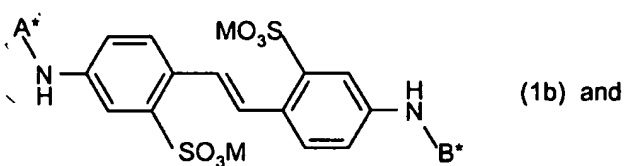
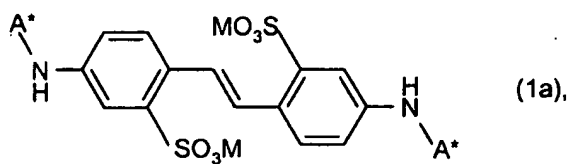
MEI HUANG DID ORIGINAL SEARCH.
CLAIMS ARE AMENDED TO RECITE
THE PRESENCE OF COMPOUNDS WITH
NON-IDENTICAL END GROUPS.

Searcher: <u>MQH</u>	NA Sequence (#) _____	STN <u>✓</u>
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) <u>11</u>	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr. Link _____
Date Completed: <u>3/16/07</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: _____	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: _____	Other _____	Other (specify) _____

IN THE CLAIMS

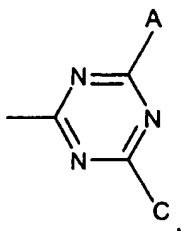
The text of all claims under examination is submitted, and the status of each is identified. This listing of claims replaces all prior versions, and listings, of claims in the application.

1. (currently amended): A fluorescent whitening agent, which comprises a mixture of compounds of the formulae



in which

A* represents a group of the formula

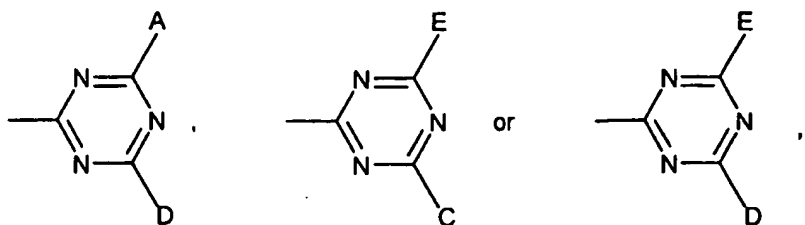


wherein

A represents $-X-Y-NR_3R_4$ and

C is $-NR_1R_2$ and

B* represents a group of the formula



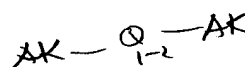
whereby the groups A* and B* are not identical,

wherein

D represents -NR₅R₆ and

E represents -X₁-Y₁-NR₇R₈, whereby

X and X₁ each, independently of each other, represent -O- or -NH-,



Y and Y₁ each, independently of each other, represent a straight-chain C₂-C₈alkylene or branched C₃-C₈alkylene chain, which may be interrupted by one or two nitrogen, oxygen or sulphur atoms or represent a 5- or 6-membered cycloaliphatic ring,

R₁, R₂, R₅ and R₆ each independently of each other, represent hydrogen, C₁-C₈alkyl,

C₂-C₄hydroxyalkyl, C₁-C₄alkoxyC₁-C₄alkyl, phenyl, which is unsubstituted or substituted by halogen, C₁-C₄alkoxy, C₁-C₄alkyl or sulphonamido, or

R₁ and R₂ and /or R₅ and R₆, together with the nitrogen atom to which they are attached, complete a morpholino- piperidino- or pyrrolidino-ring,

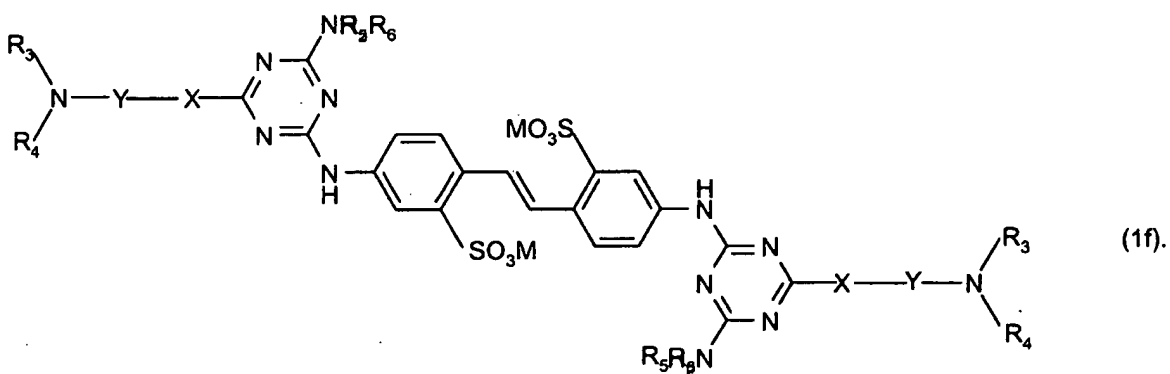
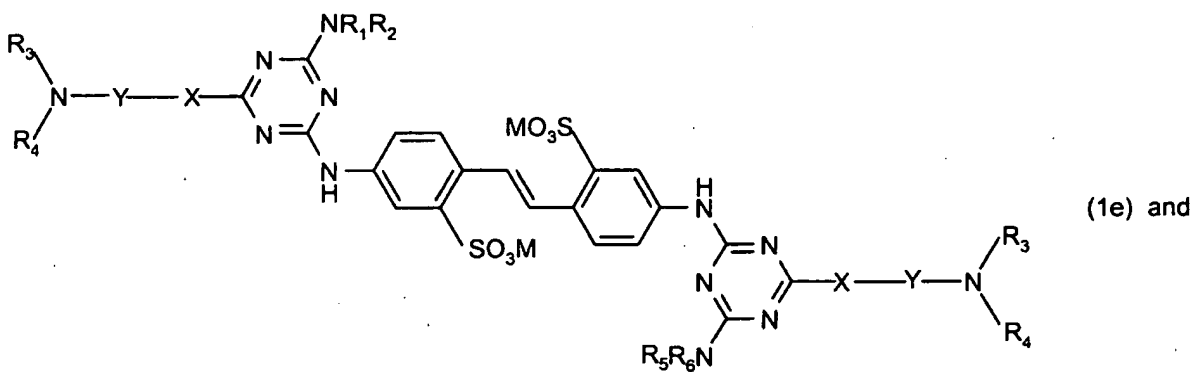
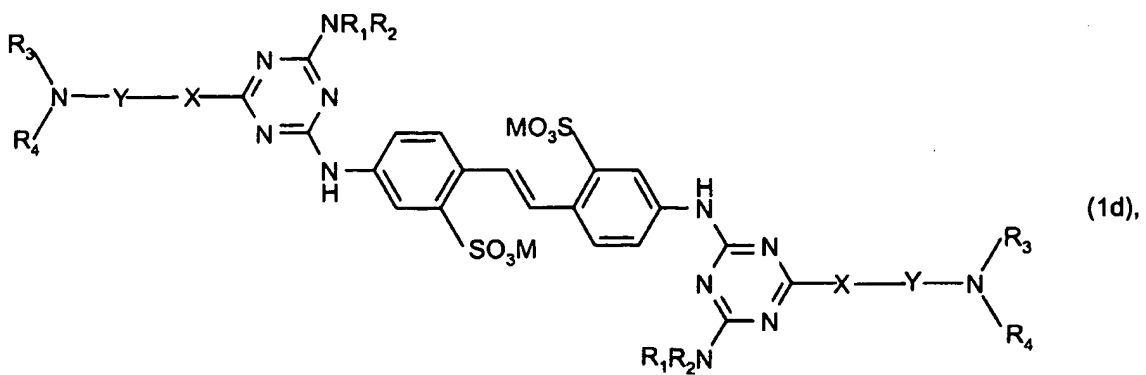
R₃, R₄, R₇ and R₈, each independently of each other, represent hydrogen, C₁-C₄alkyl,

C₂-C₄hydroxyalkyl or

R₃ and R₄ and/or R₇ and R₈, together with the nitrogen atom to which they are attached, complete a morpholino-, piperidino- or pyrrolidino-ring and

M represents hydrogen, an alkaline or alkaline earth metal, ammonium or alkylammonium.

2. (previously presented): A fluorescent whitening agent, according to claim 1, which comprises a mixture of compounds of the formulae



3. (previously presented): A fluorescent whitening agent, according to claim 1, which comprises a mixture of compounds of the formulae

=> fil reg

FILE 'REGISTRY' ENTERED AT 15:27:47 ON 16 MAR 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2007 American Chemical Society (ACS)

=> d his nofile

(FILE 'HOME' ENTERED AT 14:11:23 ON 16 MAR 2007)

L1 FILE 'LREGISTRY' ENTERED AT 14:11:32 ON 16 MAR 2007
STR

L2 FILE 'REGISTRY' ENTERED AT 14:13:38 ON 16 MAR 2007
43 SEA SSS SAM L1
L3 8670 SEA SSS FUL L1
SAV L3 HAR315/A

L4 FILE 'LREGISTRY' ENTERED AT 14:15:01 ON 16 MAR 2007
STR

L5 FILE 'REGISTRY' ENTERED AT 14:32:23 ON 16 MAR 2007
STR L4
L6 0 SEA SUB=L3 SSS SAM L5
L7 0 SEA SUB=L3 SSS FUL L5

L8 FILE 'LREGISTRY' ENTERED AT 14:44:28 ON 16 MAR 2007
STR L5

L9 FILE 'REGISTRY' ENTERED AT 14:48:38 ON 16 MAR 2007
0 SEA SUB=L3 SSS SAM L8
L10 0 SEA SUB=L3 SSS FUL L8

L11 FILE 'LREGISTRY' ENTERED AT 14:49:33 ON 16 MAR 2007
STR L8

L12 FILE 'REGISTRY' ENTERED AT 14:51:10 ON 16 MAR 2007
1 SEA SUB=L3 SSS SAM L11
D SCA
L13 48 SEA SUB=L3 SSS FUL L11
SAV L13 HAR315S3/A
L14 STR L8
L15 0 SEA SUB=L3 SSS SAM L14
L16 0 SEA SUB=L3 SSS FUL L14
L17 STR L14
L18 1 SEA SUB=L3 SSS SAM L17
D SCA
L19 40 SEA SUB=L3 SSS FUL L17
SAV L19 HAR315S5/A
L20 STR L5

L21 FILE 'REGISTRY' ENTERED AT 15:00:45 ON 16 MAR 2007
0 SEA SUB=L3 SSS SAM L20
L22 0 SEA SUB=L3 SSS FUL L20
L23 STR L20
L24 0 SEA SUB=L3 SSS SAM L23
L25 10 SEA SUB=L3 SSS FUL L23
D L25 QUE STAT
SAV L25 HAR315S7/A

FILE 'LREGISTRY' ENTERED AT 15:07:14 ON 16 MAR 2007
L26 STR L5
L27 STR L26

FILE 'REGISTRY' ENTERED AT 15:10:59 ON 16 MAR 2007
L28 0 SEA SUB=L3 SSS SAM L26
L29 0 SEA SUB=L3 SSS FUL L26
L30 0 SEA SUB=L3 SSS SAM L27
L31 0 SEA SUB=L3 SSS FUL L27
L32 48 SEA L13 OR L19
D SCA
L33 48 SEA L32 OR L25

FILE 'LREGISTRY' ENTERED AT 15:22:50 ON 16 MAR 2007
L34 STR L11

FILE 'REGISTRY' ENTERED AT 15:25:22 ON 16 MAR 2007
L35 0 SEA SSS SAM L34
L36 0 SEA SSS FUL L34

FILE 'HCAPLUS' ENTERED AT 15:26:09 ON 16 MAR 2007
L37 10 SEA L33

=> d que stat 17
L1 STR

N~Cb~Ak~Cb~N SO3H6
1 2 3 4 5

NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
GGCAT IS UNS AT 2
GGCAT IS UNS AT 3
GGCAT IS UNS AT 4
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE
L3 8670 SEA FILE=REGISTRY SSS FUL L1
L5 STR

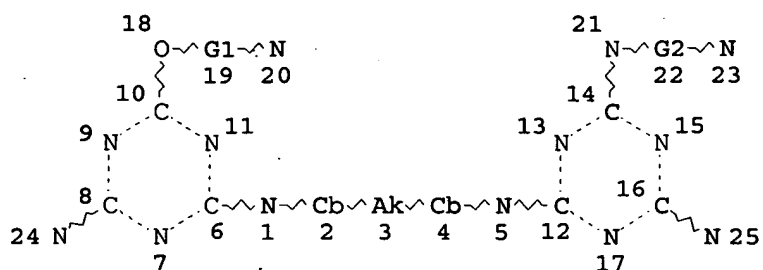
Ak @28 Cb @29

Ak~Q~Ak
@30 31 @32Ak~Q~Q~Ak
@33 34 35 @36

Ak @37 Cb @38

Ak~Q~Ak
@39 40 @41Ak~Q~Q~Ak
@42 43 44 @45

SO3H 46



VAR G1=28/29/30-18 32-20/33-18 36-20

VAR G2=37/38/39-21 41-23/42-21 45-23

NODE ATTRIBUTES:

NSPEC IS RC AT 20

NSPEC IS RC AT 23

NSPEC IS RC AT 24

NSPEC IS RC AT 25

CONNECT IS E2 RC AT 3

CONNECT IS E2 RC AT 28

CONNECT IS E2 RC AT 30

CONNECT IS E2 RC AT 32

CONNECT IS E2 RC AT 33

CONNECT IS E2 RC AT 36

CONNECT IS E2 RC AT 37

CONNECT IS E2 RC AT 39

CONNECT IS E2 RC AT 41

CONNECT IS E2 RC AT 42

CONNECT IS E2 RC AT 45

DEFAULT MLEVEL IS ATOM

GGCAT IS UNS AT 2

GGCAT IS UNS AT 3

GGCAT IS UNS AT 4

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 44

STEREO ATTRIBUTES: NONE

L7 0 SEA FILE=REGISTRY SUB=L3 SSS FUL L5

100.0% PROCESSED 938 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

=> d que stat 110

L1 STR

N~Cb~Ak~Cb~N SO3H 6
1 2 3 4 5

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

GGCAT IS UNS AT 2

GGCAT IS UNS AT 3

GGCAT IS UNS AT 4

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE

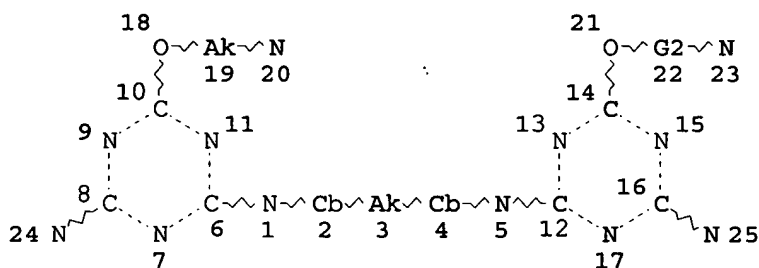
L3 8670 SEA FILE=REGISTRY SSS FUL L1

L8 STR

Cb @38

Ak~Q~Ak
@39 40 @41Ak~Q~Q~Ak
@42 43 44 @45

SO3H 46



VAR G2=38/39-21 41-23/42-21 45-23

NODE ATTRIBUTES:

NSPEC IS RC AT 20

NSPEC IS RC AT 23

NSPEC IS RC AT 24

NSPEC IS RC AT 25

CONNECT IS E2 RC AT 3

CONNECT IS E2 RC AT 19

CONNECT IS E2 RC AT 39

CONNECT IS E2 RC AT 41

CONNECT IS E2 RC AT 42

CONNECT IS E2 RC AT 45

DEFAULT MLEVEL IS ATOM

GGCAT IS UNS AT 2

GGCAT IS UNS AT 3

GGCAT IS UNS AT 4

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 34

STEREO ATTRIBUTES: NONE

L10 0 SEA FILE=REGISTRY SUB=L3 SSS FUL L8

100.0% PROCESSED 846 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

=> d que stat l13
L1 STR

N~Cb~Ak~Cb~N SO3H 6
1 2 3 4 5

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM
GGCAT IS UNS AT 2
GGCAT IS UNS AT 3
GGCAT IS UNS AT 4
DEFAULT ECLEVEL IS LIMITED

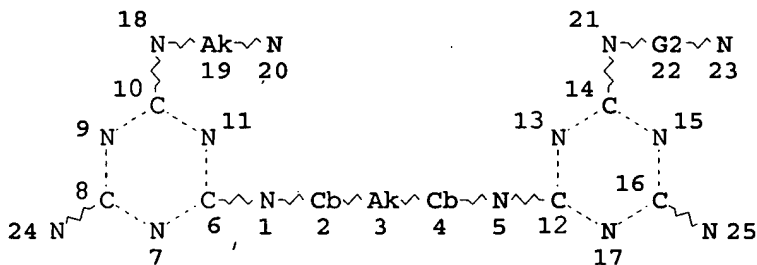
GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE

L3 8670 SEA FILE=REGISTRY SSS FUL L1
L11 STR

Cb @38 Ak~Q~Ak Ak~Q~Q~Ak SO3H 46
@39 40 @41 @42 43 44 @45



VAR G2=38/39-21 41-23/42-21 45-23

NODE ATTRIBUTES:

NSPEC IS RC AT 20
NSPEC IS RC AT 23
NSPEC IS RC AT 24
NSPEC IS RC AT 25
CONNECT IS E2 RC AT 3
CONNECT IS E2 RC AT 19
CONNECT IS E2 RC AT 39
CONNECT IS E2 RC AT 41
CONNECT IS E2 RC AT 42
CONNECT IS E2 RC AT 45
DEFAULT MLEVEL IS ATOM
GGCAT IS UNS AT 2
GGCAT IS UNS AT 3
GGCAT IS UNS AT 4
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 34

STEREO ATTRIBUTES: NONE

L13 48 SEA FILE=REGISTRY SUB=L3 SSS FUL L11

100.0% PROCESSED 1692 ITERATIONS

48 ANSWERS

SEARCH TIME: 00.00.01

=> d que stat l16

L1 STR

N~Cb~Ak~Cb~N SO3H 6
 1 2 3 4 5

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

GGCAT IS UNS AT 2

GGCAT IS UNS AT 3

GGCAT IS UNS AT 4

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE

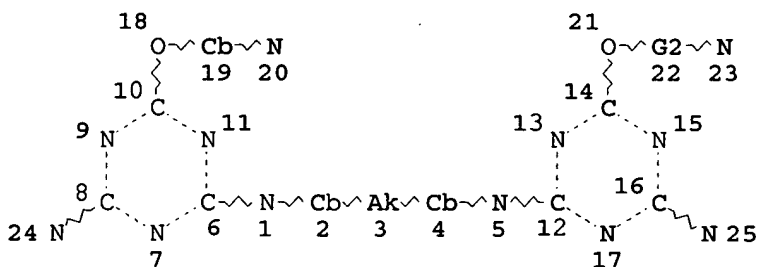
L3 8670 SEA FILE=REGISTRY SSS FUL L1

L14 STR

Ak @38

Ak~Q~Ak
@39 40 @41Ak~Q~Q~Ak
@42 43 44 @45

SO3H 46



VAR G2=38/39-21 41-23/42-21 45-23

NODE ATTRIBUTES:

NSPEC IS RC AT 20

NSPEC IS RC AT 23

NSPEC IS RC AT 24

NSPEC IS RC AT 25

CONNECT IS E2 RC AT 3

CONNECT IS E2 RC AT 38

CONNECT IS E2 RC AT 39

CONNECT IS E2 RC AT 41

CONNECT IS E2 RC AT 42

CONNECT IS E2 RC AT 45

DEFAULT MLEVEL IS ATOM

GGCAT IS UNS AT 2

GGCAT IS UNS AT 3

GGCAT IS UNS AT 4

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 34

STEREO ATTRIBUTES: NONE

L16 0 SEA FILE=REGISTRY SUB=L3 SSS FUL L14

100.0% PROCESSED 846 ITERATIONS
SEARCH TIME: 00.00.01

0 ANSWERS

=> d que stat l19

L1 STR

N~Cb~Ak~Cb~N SO3H 6
1 2 3 4 5

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

GGCAT IS UNS AT 2

GGCAT IS UNS AT 3

GGCAT IS UNS AT 4

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

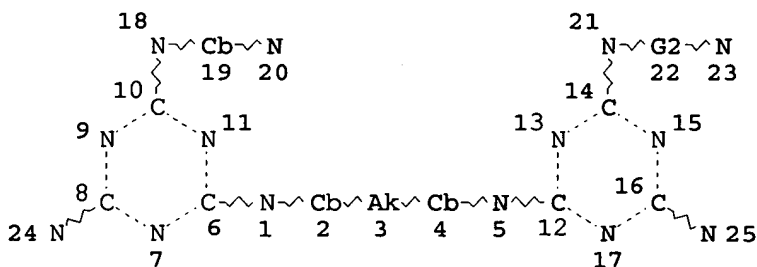
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE

L3 8670 SEA FILE=REGISTRY SSS FUL L1

L17 STR

Ak @38 Ak~Q~Ak Ak~Q~Q~Ak SO3H 46
@39 40 @41 @42 43 44 @45



VAR G2=38/39-21 41-23/42-21 45-23

NODE ATTRIBUTES:

NSPEC IS RC AT 20

NSPEC IS RC AT 23

NSPEC IS RC AT 24

NSPEC IS RC AT 25

CONNECT IS E2 RC AT 3

CONNECT IS E2 RC AT 38

CONNECT IS E2 RC AT 39

CONNECT IS E2 RC AT 41

CONNECT IS E2 RC AT 42

CONNECT IS E2 RC AT 45
 DEFAULT MLEVEL IS ATOM
 GGCAT IS UNS AT 2
 GGCAT IS UNS AT 3
 GGCAT IS UNS AT 4
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 34

STEREO ATTRIBUTES: NONE
 L19 40 SEA FILE=REGISTRY SUB=L3 SSS FUL L17

100.0% PROCESSED 1692 ITERATIONS
 SEARCH TIME: 00.00.01

40 ANSWERS

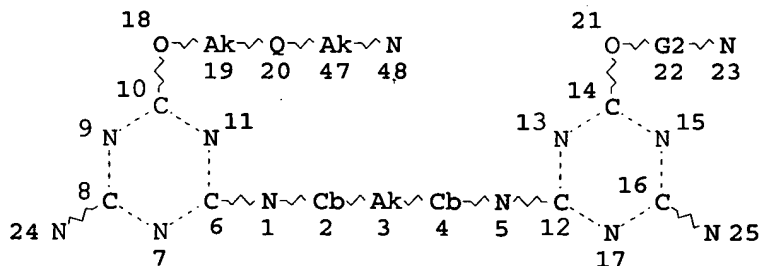
=> d que stat 122
 L1 STR

N~Cb~Ak~Cb~N SO3H 6
 1 2 3 4 5

NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 GGCAT IS UNS AT 2
 GGCAT IS UNS AT 3
 GGCAT IS UNS AT 4
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE
 L3 8670 SEA FILE=REGISTRY SSS FUL L1
 L20 STR
 Ak @37 Cb @38 Ak~Q~Q~Ak SO3H 46
 @42 43 44 @45



VAR G2=37/38/42-21 45-23
 NODE ATTRIBUTES:
 NSPEC IS RC AT 23
 NSPEC IS RC AT 24
 NSPEC IS RC AT 25
 NSPEC IS RC AT 48

CONNECT IS E2 RC AT 3
 CONNECT IS E2 RC AT 19
 CONNECT IS E2 RC AT 37
 CONNECT IS E2 RC AT 42
 CONNECT IS E2 RC AT 45
 CONNECT IS E2 RC AT 47
 DEFAULT MLEVEL IS ATOM
 GGCAT IS UNS AT 2
 GGCAT IS UNS AT 3
 GGCAT IS UNS AT 4
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 34

STEREO ATTRIBUTES: NONE
 L22 0 SEA FILE=REGISTRY SUB=L3 SSS FUL L20

100.0% PROCESSED 846 ITERATIONS
 SEARCH TIME: 00.00.01

0 ANSWERS

=> d que stat 125

L1 STR

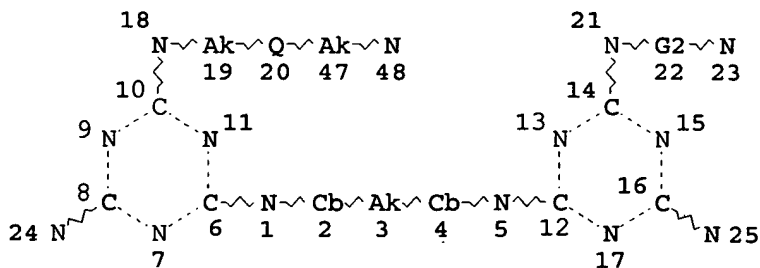
N~Cb~Ak~Cb~N SO3H 6
 1 2 3 4 5

NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 GGCAT IS UNS AT 2
 GGCAT IS UNS AT 3
 GGCAT IS UNS AT 4
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE
 L3 8670 SEA FILE=REGISTRY SSS FUL L1
 L23 STR

Ak@37 Cb@38 Ak~Q~Q~Ak SO3H 46
 @42 43 44 @45



VAR G2=37/38/42-21 45-23

NODE ATTRIBUTES:

NSPEC IS RC AT 23
 NSPEC IS RC AT 24
 NSPEC IS RC AT 25
 NSPEC IS RC AT 48
 CONNECT IS E2 RC AT 3
 CONNECT IS E2 RC AT 19
 CONNECT IS E2 RC AT 37
 CONNECT IS E2 RC AT 42
 CONNECT IS E2 RC AT 45
 CONNECT IS E2 RC AT 47
 DEFAULT MLEVEL IS ATOM
 GGCAT IS UNS AT 2
 GGCAT IS UNS AT 3
 GGCAT IS UNS AT 4
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 34

STEREO ATTRIBUTES: NONE

L25 10 SEA FILE=REGISTRY SUB=L3 SSS FUL L23

100.0% PROCESSED 1692 ITERATIONS
 SEARCH TIME: 00.00.01

10 ANSWERS

=> d que stat 129

L1 STR

N~Cb~Ak~Cb~N SO3H 6
 1 2 3 4 5

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM
 GGCAT IS UNS AT 2
 GGCAT IS UNS AT 3
 GGCAT IS UNS AT 4
 DEFAULT ECLEVEL IS LIMITED

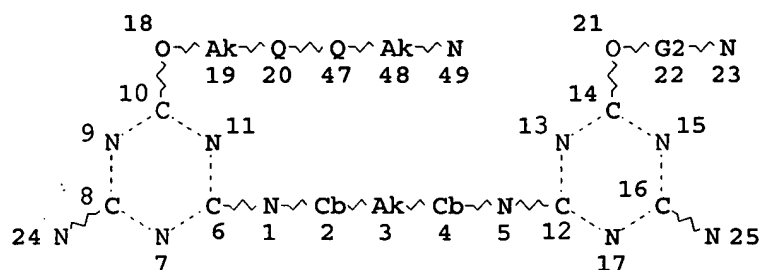
GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE

L3 8670 SEA FILE=REGISTRY SSS FUL L1
 L26 STR

Ak @37 Cb @38 Ak~Q~Ak SO3H 46
 @39 40 @41



VAR G2=37/38/39-21 41-23

NODE ATTRIBUTES:

NSPEC IS RC AT 23

NSPEC IS RC AT 24

NSPEC IS RC AT 25

NSPEC IS RC AT 49

CONNECT IS E2 RC AT 3

CONNECT IS E2 RC AT 19

CONNECT IS E2 RC AT 37

CONNECT IS E2 RC AT 39

CONNECT IS E2 RC AT 41

CONNECT IS E2 RC AT 48

DEFAULT MLEVEL IS ATOM

GGCAT IS UNS AT 2

GGCAT IS UNS AT 3

GGCAT IS UNS AT 4

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 34

STEREO ATTRIBUTES: NONE

L29 0 SEA FILE=REGISTRY SUB=L3 SSS FUL L26

100.0% PROCESSED 846 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.02

=> d que stat l31

L1 STR

N~Cb~Ak~Cb~N SO3H 6
 1 2 3 4 5

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

GGCAT IS UNS AT 2

GGCAT IS UNS AT 3

GGCAT IS UNS AT 4

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

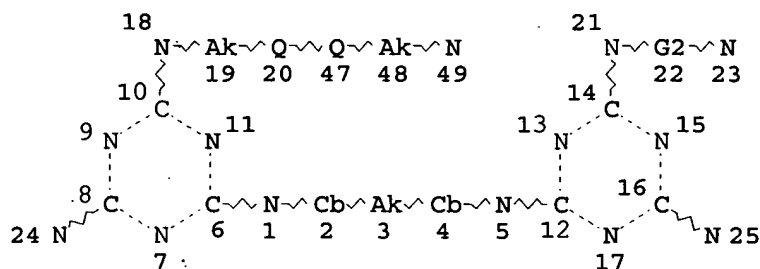
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE

L3 8670 SEA FILE=REGISTRY SSS FUL L1

L27 STR

Ak @37 Cb @38 Ak~Q~Ak SO3H 46
@39 40 @41



VAR G2=37/38/39-21 41-23

NODE ATTRIBUTES:

NSPEC IS RC AT 23

NSPEC IS RC AT 24

NSPEC IS RC AT 25

NSPEC IS RC AT 49

CONNECT IS E2 RC AT 3

CONNECT IS E2 RC AT 19

CONNECT IS E2 RC AT 37

CONNECT IS E2 RC AT 39

CONNECT IS E2 RC AT 41

CONNECT IS E2 RC AT 48

DEFAULT MLEVEL IS ATOM

GGCAT IS UNS AT 2

GGCAT IS UNS AT 3

GGCAT IS UNS AT 4

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 34

STEREO ATTRIBUTES: NONE

L31 0 SEA FILE=REGISTRY SUB=L3 SSS FUL L27

100.0% PROCESSED 1692 ITERATIONS

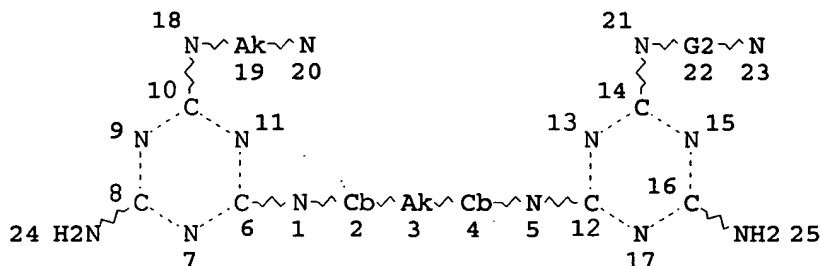
0 ANSWERS

SEARCH TIME: 00.00.01

=> d que stat l36

L34 STR

Cb @38 Ak~Q~Ak Ak~Q~Q~Ak SO3H 46
 @39 40 @41 @42 43 44 @45



VAR G2=38/39-21 41-23/42-21 45-23

NODE ATTRIBUTES:

NSPEC IS RC AT 20
 NSPEC IS RC AT 23
 CONNECT IS E2 RC AT 3
 CONNECT IS E2 RC AT 19
 CONNECT IS E2 RC AT 39
 CONNECT IS E2 RC AT 41
 CONNECT IS E2 RC AT 42
 CONNECT IS E2 RC AT 45
 DEFAULT MLEVEL IS ATOM
 GGCAT IS UNS AT 2
 GGCAT IS UNS AT 3
 GGCAT IS UNS AT 4
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 34

STEREO ATTRIBUTES: NONE

L36 0 SEA FILE=REGISTRY SSS FUL L34

100.0% PROCESSED 9661 ITERATIONS
 SEARCH TIME: 00.00.02

0 ANSWERS

=> fil hcap

FILE 'HCAPLUS' ENTERED AT 15:29:12 ON 16 MAR 2007

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

=> d l37 ibib abs hitstr hitind 1-10

L37 ANSWER 1 OF 10 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:410059 HCAPLUS

DOCUMENT NUMBER: 144:452211

TITLE: Amphoteric 4-4'-bis(triazinylamino) stilbene-2,
 2'-disulfonic acid derivatives as optical
 brighteners for paper

INVENTOR(S): Scheffler, Goetz; Schlatter, Rene

PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.
 SOURCE: PCT Int. Appl., 51 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006045691	A1	20060504	WO 2005-EP55122	20051010

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: EP 2004-105184 A 20041020

OTHER SOURCE(S): MARPAT 144:452211

AB The present invention provides 4,4'-bis(triazinylamino)stilbene-2,2'-disulfonic acid derivs. and compns., a process for their preparation, aqueous formulations thereof, their use as an optical brightener for paper and to paper treated with these derivs.

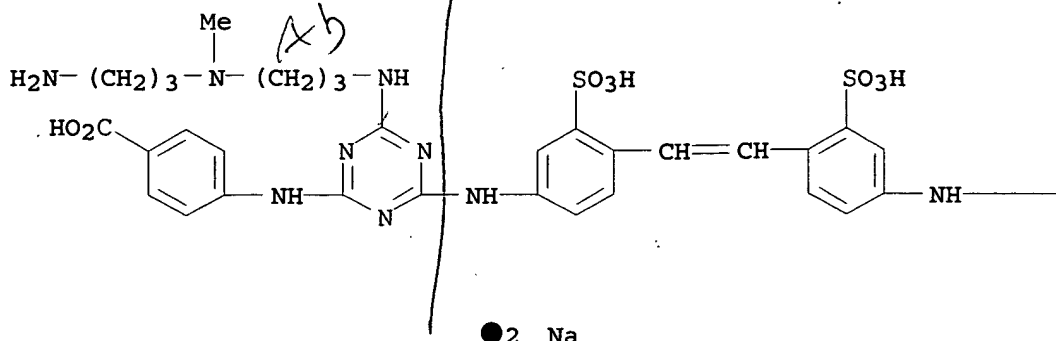
IT 885476-06-2P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
 PREP (Preparation); USES (Uses)
 (amphoteric 4-4'-bis(triazinylamino) stilbene-2, 2'-disulfonic acid derivs. as optical brighteners for paper)

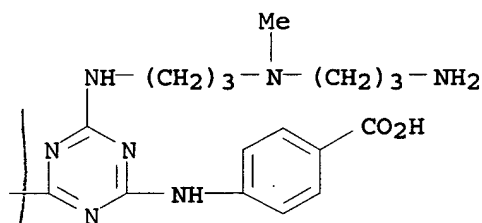
RN 885476-06-2 HCAPLUS

CN Benzoic acid, 4,4'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino[6-[[3-[(3-aminopropyl)methylamino]propyl]amino]-1,3,5-triazine-4,2-diyl]]imino]bis-, disodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)

Section cross-reference(s): 41

IT 885476-04-0P 885476-05-1P 885476-06-2P 885476-07-3P
 885476-08-4P 885476-09-5P 885476-10-8P 885476-11-9P
 885476-12-0P 885476-13-1P 885476-14-2P 885476-15-3P
 885476-16-4P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use);

PREP (Preparation); USES (Uses)

(amphoteric 4-4'-bis(triazinylamino) stilbene-2, 2'-disulfonic acid derivs. as optical brighteners for paper)

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L37 ANSWER 2 OF 10 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:182641 HCAPLUS

DOCUMENT NUMBER: 142:263003

TITLE: Triazinylaminostilbene derivative optical brighteners for fibers and paper

INVENTOR(S): Scheffler, Goetz; Rohwer, Hauke; Schlatter, Rene; Hochberg, Robert

PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.

SOURCE: PCT Int. Appl., 30 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----

WO 2005019189

A1

20050303

WO 2004-EP51767

200408
11

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA,
CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP,
KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD,
SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,
VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,
AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ,
DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL,
PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG

AU 2004266851

A1

20050303

AU 2004-266851

200408
11

EP 1656356

A1

20060517

EP 2004-766470

200408
11

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK

CN 1835933

A

20060920

CN 2004-80023643

200408
11

BR 2004013761

A

20061031

BR 2004-13761

200408
11

JP 2007502880

T

20070215

JP 2006-523628

200408
11

US 2006197060

A1

20060907

US 2006-568638

200602
16

US 7166564

B2

20070123

PRIORITY APPLN. INFO.:

EP 2003-102616

A

200308
21

WO 2004-EP51767

W

200408
11

OTHER SOURCE(S): MARPAT 142:263003

AB Bis(triazinylamino)stilbenes are suitable as UV absorbers and
fluorescent whiteners for textile materials, such as fibers and
paper, and also bring about an increase in the treated textile
material.

IT 845890-53-1P 845890-57-5P

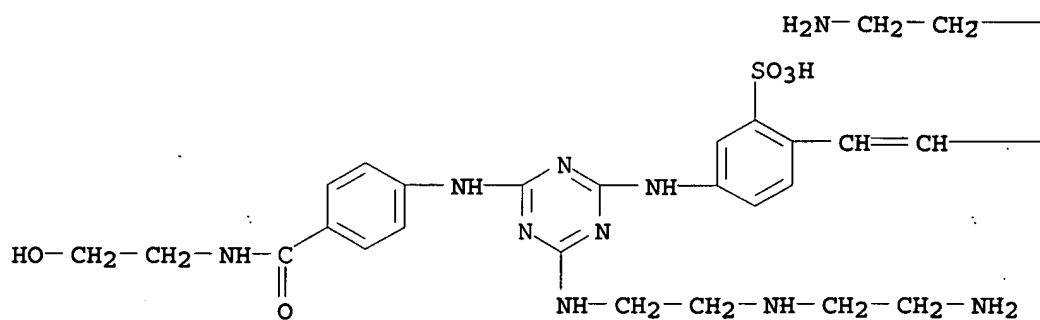
RL: IMF (Industrial manufacture); TEM (Technical or engineered
material use); PREP (Preparation); USES (Uses)

(preparation of triazinylaminostilbene derivative optical brighteners for
fibers and paper)

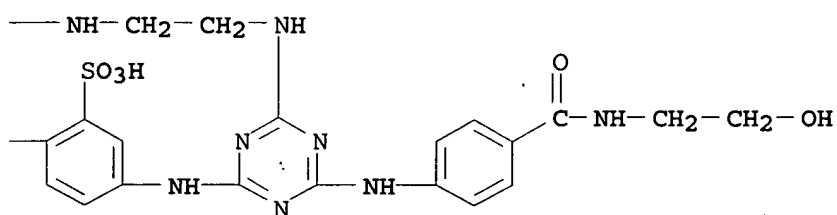
RN 845890-53-1 HCAPLUS

CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-[[2-[(2-
aminoethyl)amino]ethyl]amino]-6-[[4-[[2-
hydroxyethyl)amino]carbonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-
(9CI) (CA INDEX NAME)

PAGE 1-A



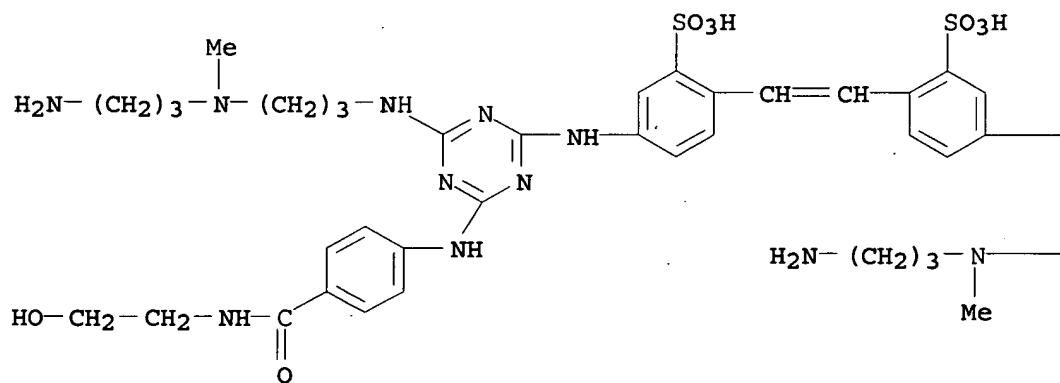
PAGE 1-B



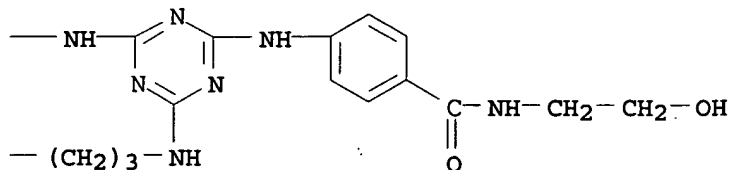
RN 845890-57-5 HCAPLUS

CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-[[3-[(3-aminopropyl)methylamino]propyl]amino]-6-[[4-[[2-hydroxyethyl]amino]carbonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-(9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



X

IC ICM C07D251-70
ICS C08K005-3492
CC 40-9 (Textiles and Fibers)
Section cross-reference(s): 43
IT 845890-46-2P 845890-47-3P 845890-48-4P 845890-49-5P
845890-50-8P 845890-52-0P 845890-53-1P 845890-54-2P
845890-56-4P 845890-57-5P 845890-58-6P 845890-59-7P
845890-60-0P 845890-61-1P 845890-62-2P 845890-63-3P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of triazinylaminostilbene derivative optical brighteners for fibers and paper)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L37 ANSWER 3 OF 10 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:453320 HCAPLUS
DOCUMENT NUMBER: 141:25251
TITLE: Amphoteric fluorescent whitening agents for paper
INVENTOR(S): Scheffler, Goetz; Rohringer, Peter; Fletcher, Ian John
PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holdings Inc., Switz.
SOURCE: PCT Int. Appl., 74 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004046293	A2	20040603	WO 2003-EP12583	20031111

WO 2004046293	A8	20040826
WO 2004046293	A3	20041014

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE,
 DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
 SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
 MR, NE, SN, TD, TG

CA 2504256	A1	20040603	CA 2003-2504256	200311 11
AU 2003288033	A1	20040615	AU 2003-288033	200311 11
EP 1563049	A2	20050817	EP 2003-779887	200311 11
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1711348	A	20051221	CN 2003-80103529	200311 11
BR 2003016400	A	20060221	BR 2003-16400	200311 11
JP 2006506492	T	20060223	JP 2004-552569	200311 11
EP 1674616	A2	20060628	EP 2006-111552	200311 11
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK				
US 2006155124	A1	20060713	US 2005-534315	200505 09
PRIORITY APPLN. INFO.:			EP 2002-405998	A 200211 19
			EP 2003-779887	A3 200311 11
			WO 2003-EP12583	W 200311 11

OTHER SOURCE(S): MARPAT 141:25251
 GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Novel bis-triazinylaminostilbene amphoteric fluorescent whitening agents, comprising both individual components and mixts. thereof, are used as fluorescent whitening agents for the fluorescent whitening of paper. Thus, a fluorescent whitening agent comprises a mixture of compds. of the formula I, II and III in which A* represents a group of the formula IV, wherein A represents -X-Y-NR₃R₄ and C is

-NR1R2 and B* represents a group of the formula V, VI and VII wherein D represents -NR5R6 and E represents -X1-Y1-NR7R8, whereby X and X1 each, independently of each other, represent -O- or -NH-, Y and Y1 each, independently of each other, represent a straight-chain C2-C8 alkylene or branched C3-C8 alkylene chain, which may be interrupted by one or two nitrogen, oxygen or sulfur atoms or represent a 5- or 6-membered cycloaliph. ring, R1, R2, R5 and R6 each independently of each other, represent hydrogen, C1-C8 alkyl, C2-C4 hydroxyalkyl, C1-C4 alkoxy C1-C4 alkyl, Ph, which is unsubstituted or substituted by halogen, C1-C4 alkoxy, CI-C4 alkyl or sulfonamido, or R1 and R2 and /or R5 and R6, together with the nitrogen atom to which they are attached, complete a morpholino-piperidino- or pyrrolidino-ring, R3, R4, R7 and R8, each independently of each other, represent hydrogen, C1-C4 alkyl, C2-C4 hydroxyalkyl or R3 and R4 and/or R7 and R8, together with the nitrogen atom to which they are attached, complete a morpholino-, piperidino- or pyrrolidino-ring and M represents hydrogen, an alkaline or alkaline earth metal, ammonium or alkylammonium. A process for their preparation and intermediates useful for their preparation are discussed.

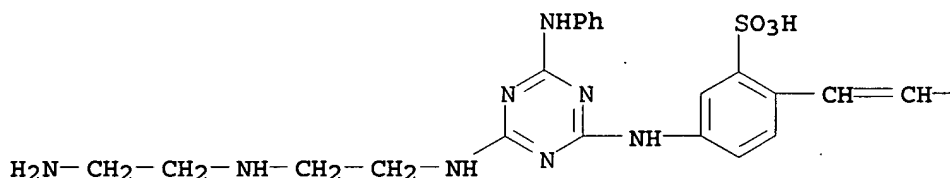
IT 697768-52-8P

RL: SPN (Synthetic preparation); PREP (Preparation)
(amphoteric fluorescent whitening agents for paper)

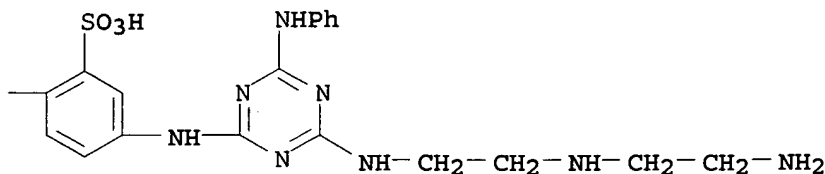
RN 697768-52-8 HCAPLUS

CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-[[2-[(2-aminoethyl)amino]ethyl]amino]-6-(phenylamino)-1,3,5-triazin-2-yl]amino]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM C11D003-42

CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)

IT	697767-94-5P	697767-95-6P	697767-96-7P	697767-98-9P
	697768-00-6P	697768-04-0P	697768-06-2P	697768-09-5P
	697768-11-9P	697768-12-0P	697768-13-1P	697768-15-3P
	697768-16-4P	697768-18-6P	697768-20-0P	697768-22-2P
	697768-24-4P	697768-25-5P	697768-28-8P	697768-29-9P
	697768-30-2P	697768-31-3P	697768-33-5P	697768-34-6P
	697768-35-7P	697768-40-4P	697768-41-5P	697768-43-7P
	697768-44-8P	697768-45-9P	697768-46-0P	697768-47-1P
	697768-48-2P	697768-50-6P	697768-52-8P	697768-54-0P

RL: SPN (Synthetic preparation); PREP (Preparation)
(amphoteric fluorescent whitening agents for paper)

L37 ANSWER 4 OF 10 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:640956 HCAPLUS
DOCUMENT NUMBER: 131:273416
TITLE: Water-soluble sunscreens and detergent
compositions containing them
INVENTOR(S): Cox, Russell Duncan; Finch, Timothy David;
Griffiths, John; Maddison, Christopher; Wilkes,
Ian Paul
PATENT ASSIGNEE(S): Unilever PLC, UK; Unilever N.V.; Hindustan Lever
Ltd.
SOURCE: PCT Int. Appl., 33 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9950379	A1	19991007	WO 1999-EP1962	199903 23
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9935980	A	19991018	AU 1999-35980	199903 23
PRIORITY APPLN. INFO.:		GB 1998-7073	A	199804 01
		GB 1998-7074	A	199804 01
		WO 1999-EP1962	W	199903 23

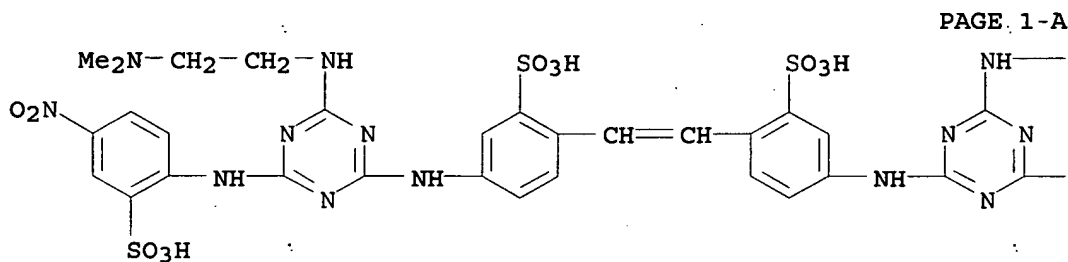
OTHER SOURCE(S): MARPAT 131:273416
AB A sunscreen agent which is a non-dye, substantially non-fluorescent,
non-quaternary ammonium compound which absorbs UVA and/or UVB
radiation is incorporated ($\geq 5\%$, preferably $\geq 7.5\%$, more
preferably $\geq 10\%$) in a detergent and in a test deposited on a
sheet of cotton-fabric by a solution of 0.2 g/L of the agent in H₂O for
1 h at 21° at a solution:sheet weight ratio 25:1, (preferably
followed by rinsing) and then followed by drying. A typical powdered
detergent contained water 12.5, Na linear alkylbenzenesulfonate
23.6, Na tripolyphosphate 19.2, Na silicate 4.8, sunscreen 0.2, SCMC

0.4, Na sulfate 28.6, calcite 10.3, and minors 0.4%.

IT 245335-52-8
 RL: MOA (Modifier or additive use); USES (Uses)
 (water-soluble sunscreens for detergents)

RN 245335-52-8 HCAPLUS

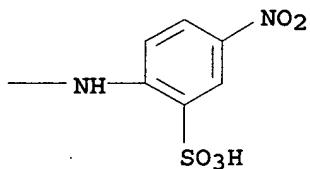
CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-[[2-(dimethylamino)ethyl]amino]-6-[(4-nitro-2-sulfophenyl)amino]-1,3,5-triazin-2-yl]amino]-, tetrasodium salt (9CI) (CA INDEX NAME)



● 4 Na

PAGE 1-B

—CH₂—CH₂—NMe₂



IC ICM C11D003-28

CC 46-5 (Surface Active Agents and Detergents)

IT 245335-50-6 245335-51-7 245335-52-8

RL: MOA (Modifier or additive use); USES (Uses)
 (water-soluble sunscreens for detergents)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN
 THE RE FORMAT

L37 ANSWER 5 OF 10 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1996:171898 HCAPLUS

DOCUMENT NUMBER: 124:204938

TITLE: Anionic acid azo direct dyes, their preparation,
 their mixtures, and their use

INVENTOR(S): Lauk, Urs

PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.

SOURCE: Eur. Pat. Appl., 71 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 693538	A2	19960124	EP 1995-810387	19950612
EP 693538	A3	19960605		
EP 693538	B1	20010822		
R: BE, CH, DE, ES, FR, GB, GR, IT, LI, PT				
US 5631352	A	19970520	US 1995-460174	19950602
ES 2161847	T3	20011216	ES 1995-810387	19950612
PT 693538	T	20020130	PT 1995-810387	19950612
JP 08003469	A	19960109	JP 1995-146285	19950613
CN 1133323	A	19961016	CN 1995-107363	19950619
CN 1066178	B	20010523		
BR 9502861	A	19960604	BR 1995-2861	19950620
GR 3036651	T3	20011231	GR 2001-401509	20010918
PRIORITY APPLN. INFO.:			CH 1994-1952	A 19940620

OTHER SOURCE(S): MARPAT 124:204938

AB Mixts. of ≥ 1 azo dye containing 1 or 2 aminotriazine groups with ≥ 1 azo dye containing 2 aminotriazine groups are direct dyes for cellulosics. They are high-temperature-stable and are especially suited for 1-bath dyeing of polyester/cotton with incorporation of a polyester disperse dye under polyester dyeing conditions. Thus, 1 mol cyanuric chloride was condensed with 2 mol 7-amino-4-hydroxy-3-(4-methoxy-2-sulfophenylazo)-2-naphthalenesulfonic acid and then with 1 mol 1,3-diaminopropane to provide an aminotriazine disazo dye which dyed cotton in fast red shades. The dye could also be combined with another azo dye for application.

IT 174571-99-4

RL: TEM (Technical or engineered material use); USES (Uses)
(anionic acid azo direct dye mixts. for dyeing of cellulosics)

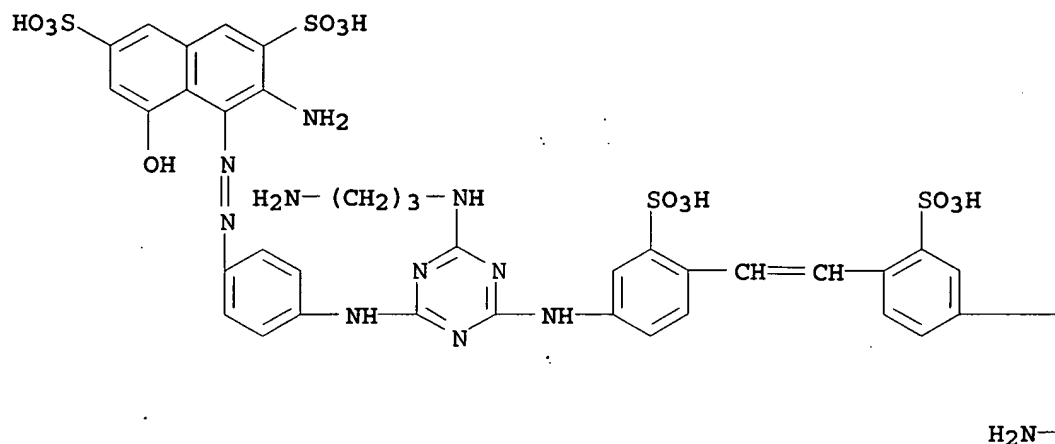
RN 174571-99-4 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid, 4,4',4'',4'''-[1,3-propanediylbis(imino-1,3,5-triazine-6,2,4-triylbis(imino-4,1-phenyleneazo))]tetrakis[3-amino-5-hydroxy-, mixt. with 4,4'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino[6-[(3-aminopropyl)amino]-1,3,5-triazine-4,2-diyl]imino-4,1-phenyleneazo]]bis[3-amino-5-hydroxy-2,7-naphthalenedisulfonic acid] (9CI) (CA INDEX NAME)

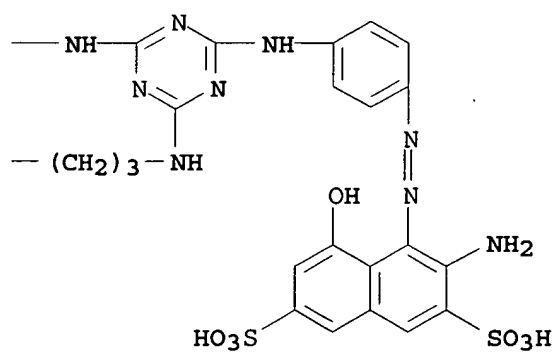
CM 1

CRN 174571-98-3
CMF C58 H56 N20 O20 S6

PAGE 1-A



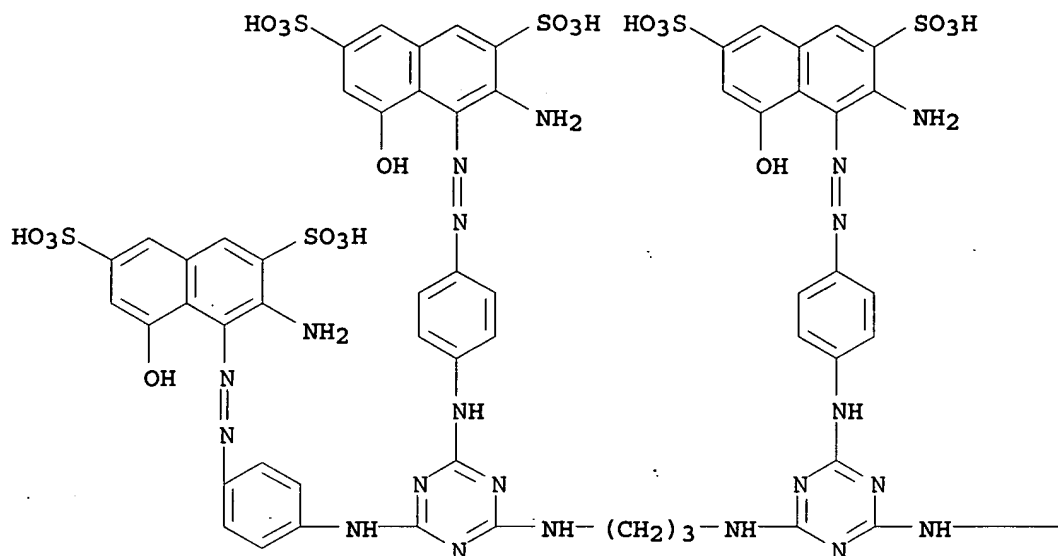
PAGE 1-B



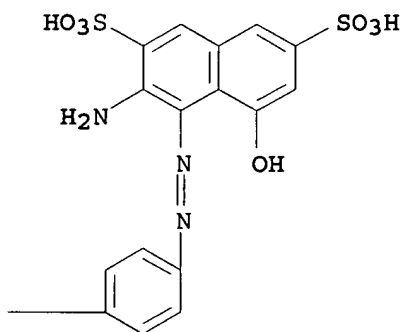
CM 2

CRN 174571-96-1
CMF C73 H60 N24 O28 S8

PAGE 1-A



PAGE 1-B



IC ICM C09B067-22

ICS C09B043-16

CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)

Section cross-reference(s): 40

IT 174571-72-3 174571-74-5 174571-76-7 174571-79-0 174571-82-5

174571-85-8 174571-88-1 174571-91-6 174571-94-9 174571-97-2

174571-99-4

RL: TEM (Technical or engineered material use); USES (Uses)

(anionic acid azo direct dye mixts. for dyeing of cellulose)

L37 ANSWER 6 OF 10 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1996:161231 HCAPLUS

DOCUMENT NUMBER: 124:263379

TITLE: Polyazo black dyes, their preparation and their use

INVENTOR(S): Hassenrueck, Karin; Wild, Peter; Stoeher, Frank-Michael

PATENT ASSIGNEE(S): Bayer A.-G., Germany

SOURCE: Eur. Pat. Appl., 31 pp.

CODEN: EPXXDW

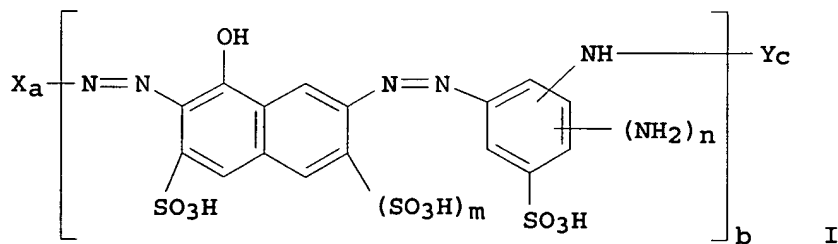
DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 692523	A1	19960117	EP 1995-110132	19950629
EP 692523 R: CH, DE, FR, GB, LI	B1	20010905		
DE 4424484	A1	19960118	DE 1994-4424484	19940712
US 5637679	A	19970610	US 1995-471435	19950607
JP 08053627	A	19960227	JP 1995-195700	19950710
PRIORITY APPLN. INFO.:			DE 1994-4424484	A 19940712

OTHER SOURCE(S): MARPAT 124:263379
GI

AB The dyes (I; a, b, c = 1 or 2, with a + c < 4 and a + b + c = 3 or 5; m, n = 0, 1; X = optionally substituted phenylazophenyl or a divalent group; Y = substituted triazinyl or a divalent group) are obtained by condensing acid halides or halotriazines with polyazo aniline derivs. I are suitable for dyeing of cellulosics and leather and are useful for printing inks. Thus, sulfanilic acid-1-amino-7-naphthalenesulfonic acid was prepared and

coupled with with γ -acid and with 1,3-diamino-4-benzenesulfonic acid and the product was condensed with cyanuric chloride followed by diethylenetriamine to give a dye (λ_{\max} 582 nm), which could be used to color paper black with good fastness.

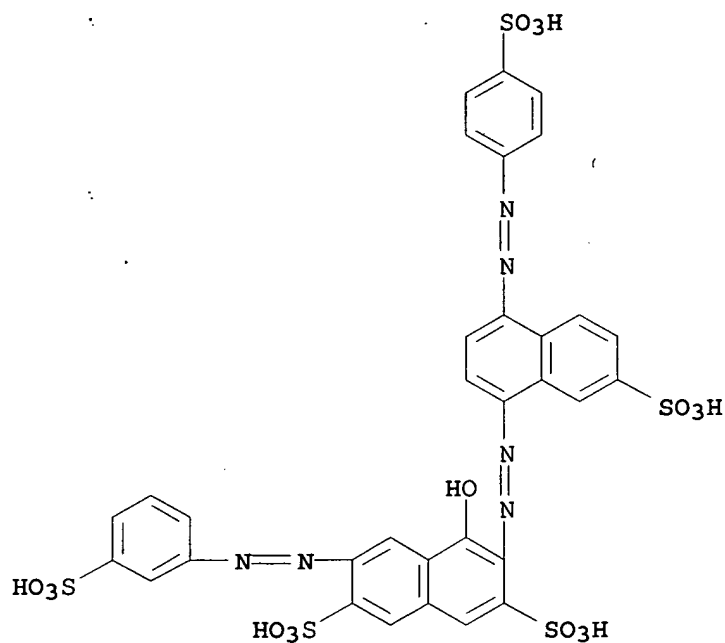
IT 174630-23-0P 174661-77-9P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyazo black dyes for ink)

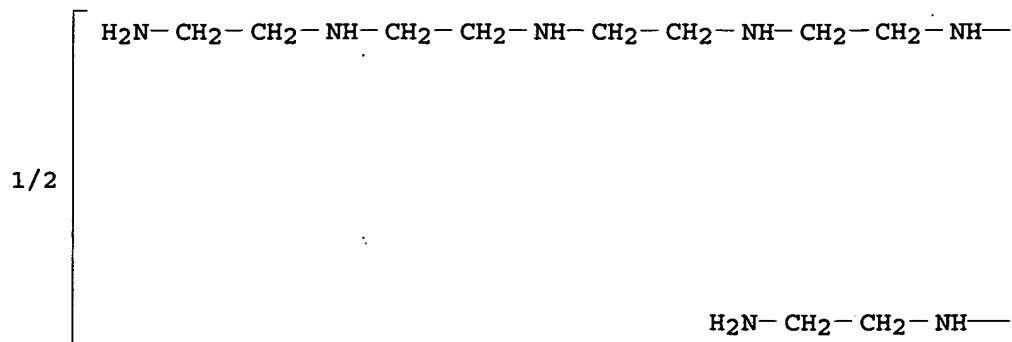
RN 174630-23-0 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid, 3,3'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene) imino[6-[(14-amino-3,6,9,12-tetraazatetradec-1-yl)amino]-1,3,5-triazine-4,2-diyl] imino (amino-3-sulfophenyl)azo]]bis[5-hydroxy-6-[[7-sulfo-4-[(4-sulfophenyl)azo]-1-naphthalenyl]azo]- (9CI) (CA INDEX NAME)

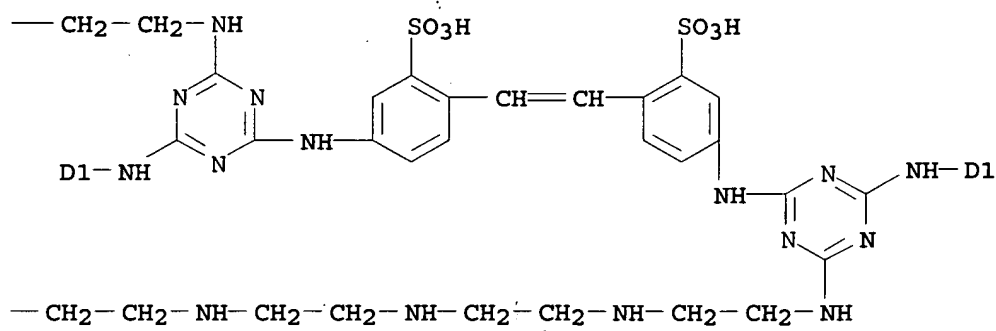
PAGE 1-A



PAGE 2-A

D1-NH₂

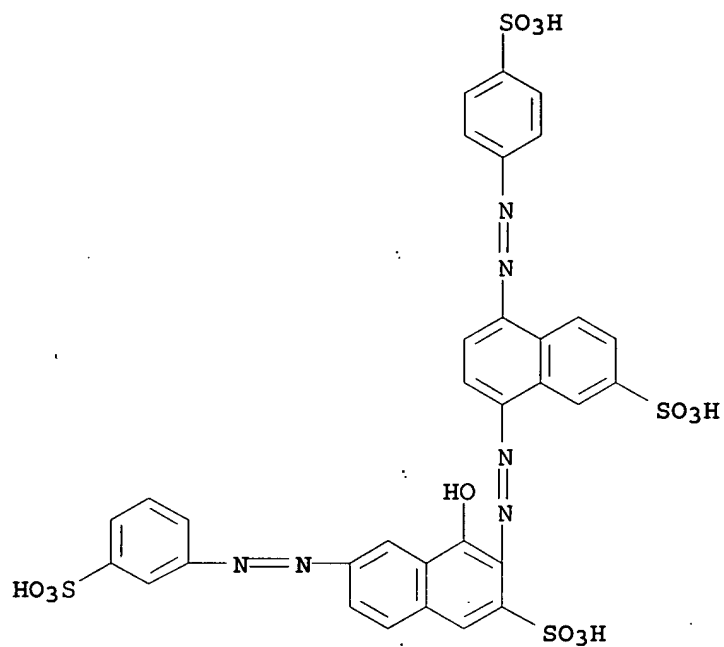
PAGE 2-B



RN 174661-77-9 HCAPLUS

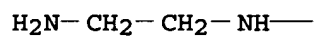
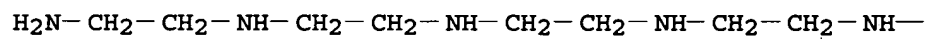
CN 2-Naphthalenesulfonic acid, 6,6'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino[6-[(14-amino-3,6,9,12-tetraazatetradec-1-yl)amino]-1,3,5-triazine-4,2-diyl]imino(aminosulfofophenylene)azo]]bis[4-hydroxy-3-[[7-sulfo-4-[(4-sulfofophenyl)azo]-1-naphthalenyl]azo]- (9CI) (CA INDEX NAME)

PAGE 1-A

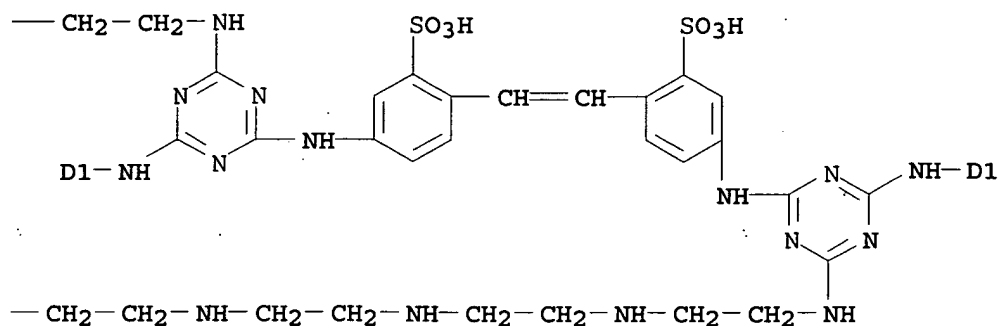


PAGE 2-A

1/2

D1-NH₂

PAGE 2-B



IC ICM C09B043-00
ICS C09B062-09; D06P001-02; C09D011-00
ICA C09B031-18
CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
Section cross-reference(s): 42, 43
IT 9002-98-6DP, Polyethylenimine, reaction products with cyanuric chloride condensates 174630-18-3P 174630-19-4P 174630-20-7P
174630-21-8P 174630-22-9P **174630-23-0P** 174630-24-1P
174630-25-2P 174630-26-3P 174630-27-4P 174630-28-5P
174630-29-6P 174661-69-9P 174661-70-2P 174661-71-3P
174661-72-4P 174661-73-5P 174661-74-6P 174661-75-7P
174661-76-8P **174661-77-9P** 174661-78-0P 174661-79-1P
174661-80-4P 174661-81-5P 174661-82-6P 174661-83-7P
174661-84-8P 174661-85-9P 174689-29-3P 175413-62-4P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyazo black dyes for ink)

L37 ANSWER 7 OF 10 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1995:938158 HCAPLUS

DOCUMENT NUMBER: 123:343358

TITLE: Dyes, inks containing them, and apparatus and methods for their use in ink-jet recording

INVENTOR(S): Nagashima, Akira; Tochiara, Shinichi; Noguchi, Hiromichi

PATENT ASSIGNEE(S): Canon K. K., Japan

SOURCE: Eur. Pat. Appl., 50 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

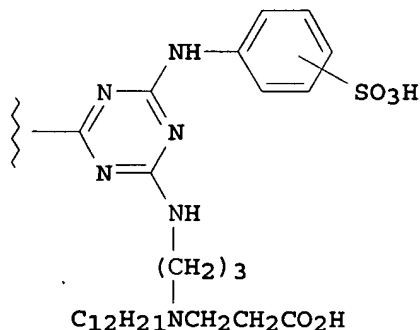
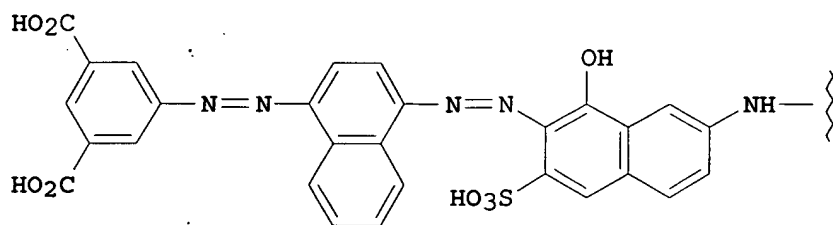
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 669381	A2	19950830	EP 1995-102509	19950222
EP 669381	A3	19970115		
EP 669381	B1	20020911		

R: CH, DE, ES, FR, GB, IT, LI, NL

US 5733363	A	19980331	US 1995-392261	199502 22
JP 07286113	A	19951031	JP 1995-63468	199502 28
JP 3754718	B2	20060315	JP 1994-52639	A 199402 28

PRIORITY APPLN. INFO.:

OTHER SOURCE(S): MARPAT 123:343358
GI



I

AB The dyes contain 1-12 acid groups and consist of 1-2 chromophores joined by 1-2 bi- or trivalent linking groups and/or 1 tetravalent linking group to 1-4 secondary or tertiary amine residues substituted with alkyl groups, CO₂M, SO₃M, and/or PO₃MM₁ (M, M₁ = H, metal). Thus, I was prepared by conventional azo coupling and condensation steps and incorporated in an ink formulation with glycerol, thiodiglycol, ethoxylated acetylenic glycol surfactant, urea, NaOH, and water. Prints obtained by ink-jet printing with the formulation showed good waterfastness, frequency responsiveness, and kagation resistance, and excellent print sharpness.

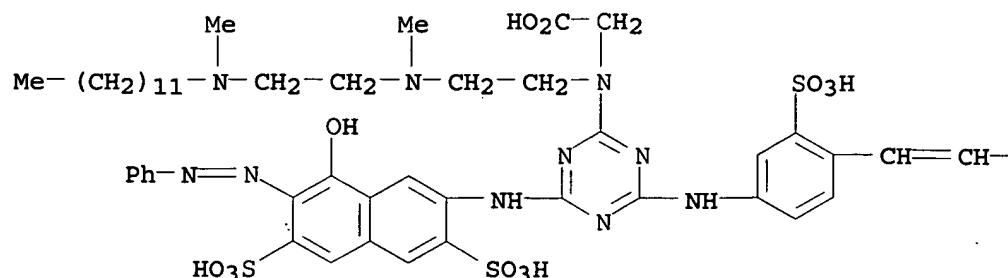
IT 170695-30-4

RL: TEM (Technical or engineered material use); USES (Uses)
(jet-printing inks containing)

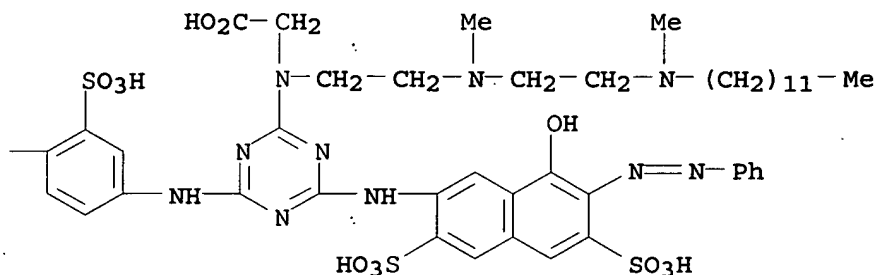
RN 170695-30-4 HCAPLUS

CN Glycine, N,N'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino[6-[[8-hydroxy-7-(phenylazo)-3,6-disulfo-2-naphthalenyl]amino]-1,3,5-triazine-4,2-diyl]]]bis[2-[[2-(dodecylmethylamino)ethyl]methylamino]ethyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM C09B069-00
 ICS C09B043-16; C09B047-26; C09B019-02; C09B001-34; C09D011-00;
 B41J002-175; B41J002-01
 CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and
 Photographic Sensitizers)
 Section cross-reference(s): 42
 IT 147-14-8D, Copper phthalocyanine, sulfonated, (aminotriazinyl)amino
 acid derivs. 170695-26-8 170695-27-9 170695-28-0 170695-29-1
 170695-30-4 170695-31-5 170695-32-6 170695-33-7D,
 reaction products with sulfonated copper phthalocyanine
 170754-61-7 170893-72-8 170969-21-8
 RL: TEM (Technical or engineered material use); USES (Uses)
 (jet-printing inks containing)

L37 ANSWER 8 OF 10 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1995:781837 HCAPLUS

DOCUMENT NUMBER: 123:172627

TITLE: Disazo and tetrakisazo dyes, their preparation and use

INVENTOR(S): Hassenrueck, Karin; Reinhardt, Karl-Heinz; Wild, Peter; Wunderlich, Klaus

PATENT ASSIGNEE(S): Bayer A.-G., Germany

SOURCE: Ger. Offen., 29 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

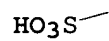
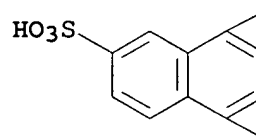
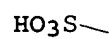
LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

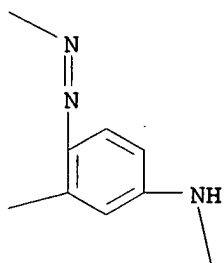
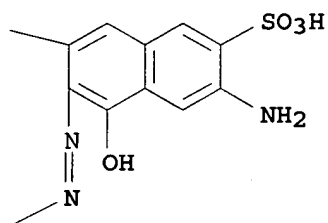
PATENT INFORMATION:

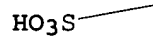
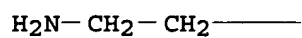
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	---	---	-----	---

PAGE 1-A



PAGE 1-B



$$\text{H}_2\text{N}-\text{CH}_2-\text{CH}_2-\text{NH}-\text{CH}_2-\text{CH}_2-\text{NH}-\text{CH}_2-\text{CH}_2-\text{NH}-\text{CH}_2-\text{CH}_2-\text{NH}-\text{CH}_2-$$
OS(=O)(=O)c1ccc(cc1)/N=N/c2ccc3ccccc3c2/N=N/c4c(O)c(N)cc(S(=O)(=O)O)c4

IC ICM C09B035-56
 ICS C09B031-072; C09B056-04; C09B056-08; C09B043-136; C09B062-09;
 C09B067-26; D06P001-39; D06P003-60; C09D011-00; C07C309-50;
 C07C241-00
 ICA D06P003-32; C07C309-46; C07C309-47; C07C245-12; C07D307-68
 ICI C07D403-04; C07D251-54; C07D295-125
 CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and
 Photographic Sensitizers)
 Section cross-reference(s): 42
 IT 167489-45-4P 167489-46-5P 167489-47-6P 167489-48-7P
 167489-49-8P 167489-50-1P 167489-51-2P 167489-52-3P
 167489-53-4P 168758-96-1P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered
 material use); PREP (Preparation); USES (Uses)
 (preparation of black polyazo dyes for paper and for jet-printing
 inks)

L37 ANSWER 9 OF 10 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1970:426622 HCAPLUS
 DOCUMENT NUMBER: 73:26622
 TITLE: 4,4'-Bis(s-triazinylamino)-2,2'-
 stilbenedisulfonate fluorescent whiteners
 INVENTOR(S): Lebkuecher, Karl H.; Schnizel, Erich; Nichwitz,
 Ehrenfried
 PATENT ASSIGNEE(S): Farbwerke Hoechst A.-G.
 SOURCE: Ger. Offen., 45 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
DE 1930307	A	19700212	DE 1969-1930307	196906 14
DE 1930307	B2	19780615		
DE 1930307	C3	19790315		
CH 525991	A	19720731	CH 1968-10953	196807 22
US 3663538	A	19720516	US 1969-839640	196907 07
NO 125051	B	19720710	NO 1969-2955	196907 15
GB 1274545	A	19720517	GB 1969-1274545	196907 16
AT 294751	B	19711210	AT 1969-6987	196907 21
SE 346539	B	19720710	SE 1969-10243	196907 21
DK 137755	B	19780501	DK 1969-3924	

196907
21

DK 137755 C 19781009
BE 736364 A 19700122 BE 1969-736364

196907
22

NL 6911208 A 19700126 NL 1969-11208

196907
22

FR 2013466 A5 19700403 FR 1969-24879

196907
22

PRIORITY APPLN. INFO.: CH 1968-10953

A

196807
22

GI For diagram(s), see printed CA Issue.

AB The title whiteners I useful for paper and cotton were prepared by quaternization of II. Thus, 38.1 parts 2,4HO₃S(H₂N)C₆H₃CH:]₂ in aqueous NaOH was condensed with 36.7 parts cyanuric chloride in H₂O-acetone followed by further condensation with 70 parts Et₂NCH₂CH₂NH₂ and acidified (HCl) to give 88.5% II (Y = Y₁ = CH₂CH₂, R = R₂ = Et, R₁ = H) (III). Similarly prepared were II (Y, Y₁, R-R₂ given): (CH₂)₃, (CH₂)₃, Et, H, Et; (CH₂)₃, (CH₂)₃, Bu, H, Bu; MeCH(CH₂)₃, MeCH(CH₂)₃, Et, H, Et; m-C₆H₄, CH₂CH₂, Me, H, Et; p-C₆H₄, CH₂CH₂, Et, H, Et; m-C₆H₄, CH₂CH₂, Me, Me, Et; p-C₆H₄, CH₂CH₂, Et, Me, Et; p-C₆H₄, CH₂CH₂, Me, Me, Et; (CH₂)₃, Me, Me, Et; p-C₆H₄, (CH₂)₃, Me, Me, Bu; m-C₆H₄, (CH₂)₃, Me, Me, Et; m-C₆H₄, (CH₂)₃, Me, Me, Bu; (CH₂)₃, (CH₂)₃, (RR=) O(CH₂CH₂)₂, H, (R₂R₂=) O(CH₂CH₂)₂; m-C₆H₄, (CH₂)₃, Me, H, (R₂R₂=) O(CH₂CH₂)₂; m-C₆H₄, (CH₂)₃, Me, Me, (R₂R₂=) O(CH₂CH₂)₂; (CH₂)₃, (CH₂)₃, (RR=) (CH₂)₅, H, (R₂R₂=) (CH₂)₅; m-C₆H₄, (CH₂)₃, Me, H, (R₂R₂=) (CH₂)₅; m-C₆H₄, (CH₂)₃, Me, Me, (R₂R₂=) (CH₂)₅; CH₂CH(OH)CH₂, CH₂CH(OH)CH₂, Et, H, Et; m-C₆H₄, CH₂(OH)CH₂, Me, H, Et; m-C₆H₄, CH₂CH(OH)CH₂, Me, Me, Et; (CH₂)₃, (CH₂)₃, Ph and Me, H, Et; (CH₂)₃, (CH₂)₃, Ph and Me, Me, Et; m-C₆H₄, (CH₂)₃, Me, Me, Ph and H; m-C₆H₄, (CH₂)₃, Me, Ph, Me; 6-Me-m-C₆H₃, (CH₂)₃, Me, H, Et; 6-Me-m-C₆H₃, (CH₂)₃, Me, Me, Et; 4-Me-m-C₆H₃, (CH₂)₃, Me, H, Et; 4-Me-m-C₆H₃, (CH₂)₃, Me, Me, Et; 4-Me-m-C₆H₃, 4-Me-m-C₆H₃, Me, H, Me; 3-Cl-p-C₆H₃, (CH₂)₃, Me, H, Et; 3-Cl-p-C₆H₃, (CH₂)₃, Me, Me, Et. III was quaternized with HCl, Me₂SO₄, and p-MeC₆H₄SO₃Me to give I (Y = Y₁ = CH₂CH₂, R = R₂ = H, R₁ = R₃ = Et, X = Cl, MeSO₄, p-MeC₆H₄SO₃), resp. Similarly prepared were I (Y, Y₁, R-R₃, and X given): (CH₂)₃, (CH₂)₃, H, Et, H, Et, HCO₂; (CH₂)₃, (CH₂)₃, Me, Et, Me, Et, MeSO₄; (CH₂)₃, (CH₂)₃, H, Bu, H, Bu, HCO₂; MeCH(CH₂)₃, MeCH(CH₂)₃, H, Et, H, Et, HCO₂; CH₂CH₂, m-C₆H₄, Me, Et, Me, Me, Cl; CH₂CH₂, p-C₆H₄, Me, Et, Me, Et, Cl; CH₂CH₂, m-C₆H₄, Me, Et, Me, Me, MeSO₄; CH₂CH₂, p-C₆H₄, Me, Et, Me, Et, MeSO₄; p-C₆H₄, CH₂CH₂, Me, Me, Me, Et, MeSO₄; p-C₆H₄, (CH₂)₃, Me, Me, Me, Et, MeSO₄; p-C₆H₄, (CH₂)₃, PhCH₂, Me, Me, Bu, Cl; p-C₆H₄, (CH₂)₃, PhCH₂, Me, Me, Et, Cl.

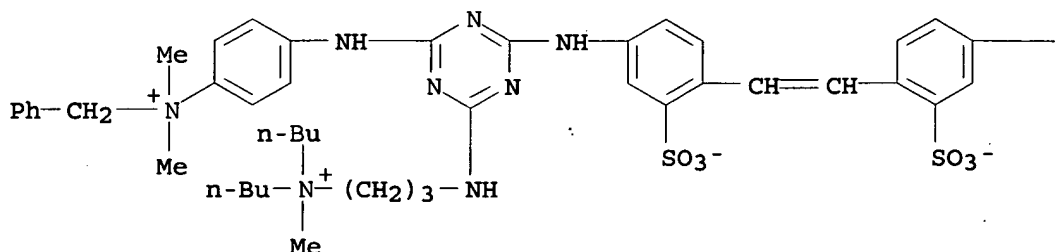
IT 28053-38-5P 28053-39-6P 28053-79-4P
28053-80-7P 28053-81-8P 28053-82-9P
28092-17-3P 28092-18-4P 28092-19-5P
28092-20-8P 28092-21-9P 28094-20-4P
28094-21-5P 28094-22-6P 28094-23-7P
28094-24-8P 28094-64-6P 28097-34-9P
28097-35-0P 28097-36-1P 28097-37-2P
28143-52-4P 28143-53-5P 28270-25-9P
28270-49-7P 28270-51-1P 31858-19-2P
31858-20-5P

RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of)

RN 28053-38-5 HCAPLUS

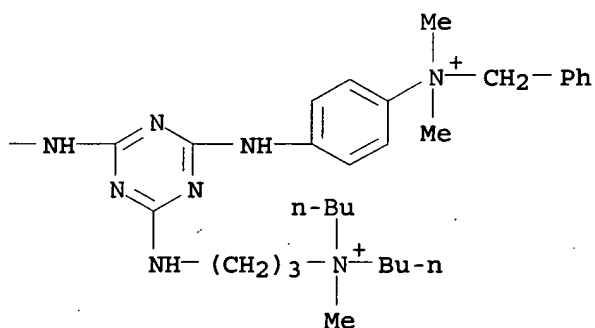
CN Ammonium, [vinylenebis[(3-sulfo-p-phenylene)imino[6-[p-(benzyltrimethylammonio)anilino]-s-triazine-4,2-diyl]iminotrimethylene]]bis[dibutylmethyl-, dihydroxide, bis(inner salt), dichloride (8CI) (CA INDEX NAME)

PAGE 1-A



● 2 Cl⁻

PAGE 1-B



RN 28053-39-6 HCAPLUS

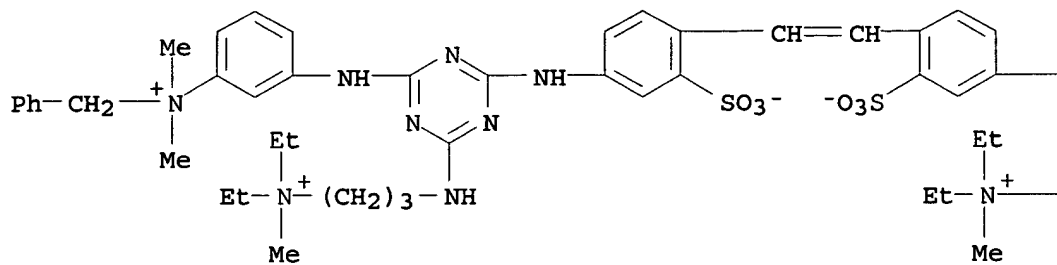
CN Ammonium, [vinylenebis[(3-sulfo-p-phenylene)imino[6-[m-(benzyltrimethylammonio)anilino]-s-triazine-4,2-diyl]iminotrimethylene]]bis[diethylmethyl-, dihydroxide, bis(inner salt), bis(methyl sulfate) (8CI) (CA INDEX NAME)

CM 1

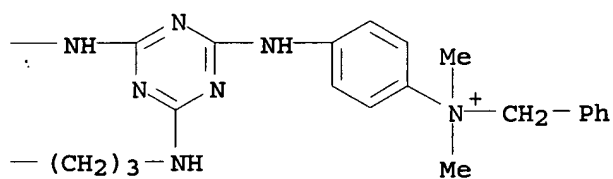
CRN 47926-10-3

CMF C66 H86 N16 O6 S2

PAGE 1-A



PAGE 1-B



CM 2

CRN 21228-90-0

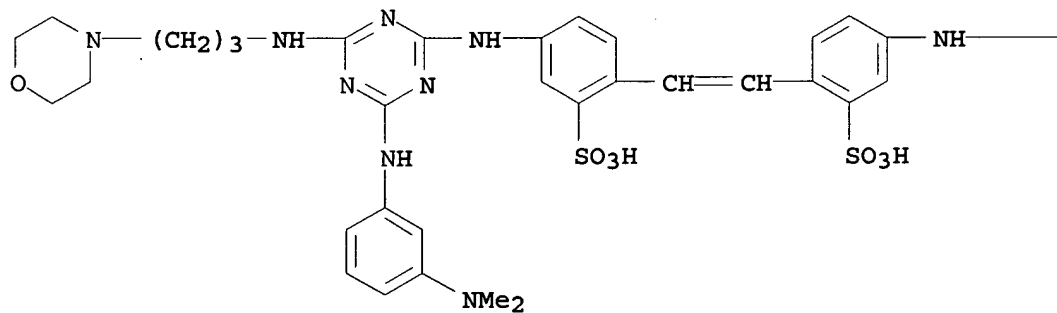
CMF C H3 O4 S

Me-O-SO₃⁻

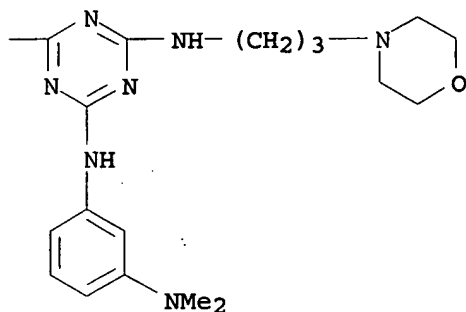
RN 28053-79-4 HCAPLUS

CN 2,2'-Stilbenedisulfonic acid, 4,4'-bis[[4-[m-(dimethylamino)anilino]-6-[(3-morpholinopropyl)amino]-s-triazin-2-yl]amino]-(8CI) (CA INDEX NAME)

PAGE 1-A



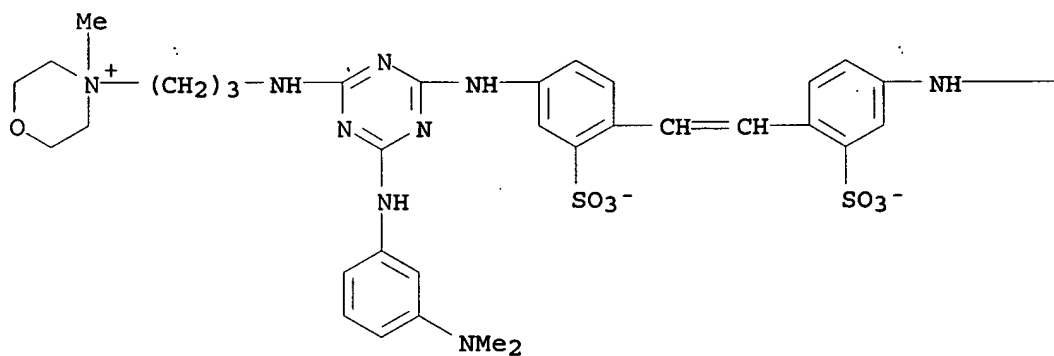
PAGE 1-B



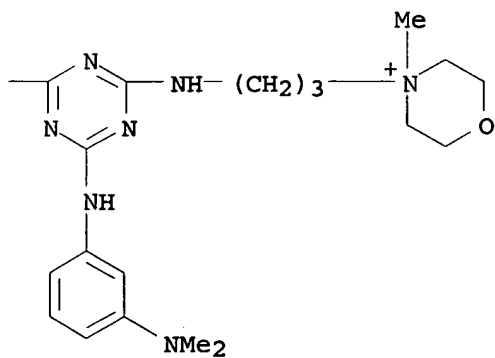
RN 28053-80-7 HCAPLUS

CN Morpholinium, 4,4'-[vinylenebis[(3-sulfo-p-phenylene)imino[6-[m-(dimethylamino)anilino]-s-triazine-4,2-diyl]iminotrimethylene]]bis[4-methyl-, dihydroxide, bis(inner salt) (8CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

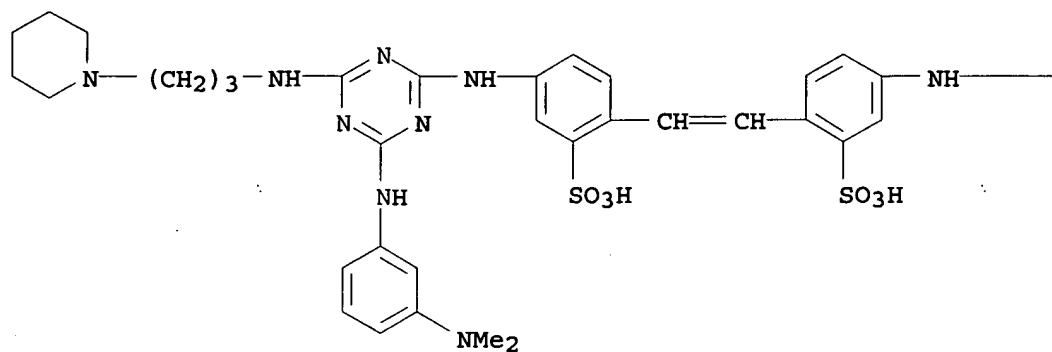


RN 28053-81-8 HCAPLUS

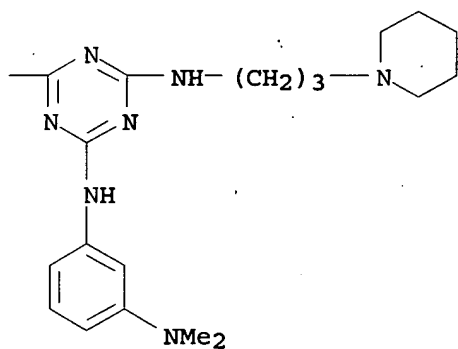
CN 2,2'-Stilbenedisulfonic acid, 4,4'-bis[[4-[m-(dimethylamino)anilino]-6-[(3-piperidinopropyl)amino]-s-triazin-2-yl]amino]- (8CI) (CA

INDEX NAME)

PAGE 1-A

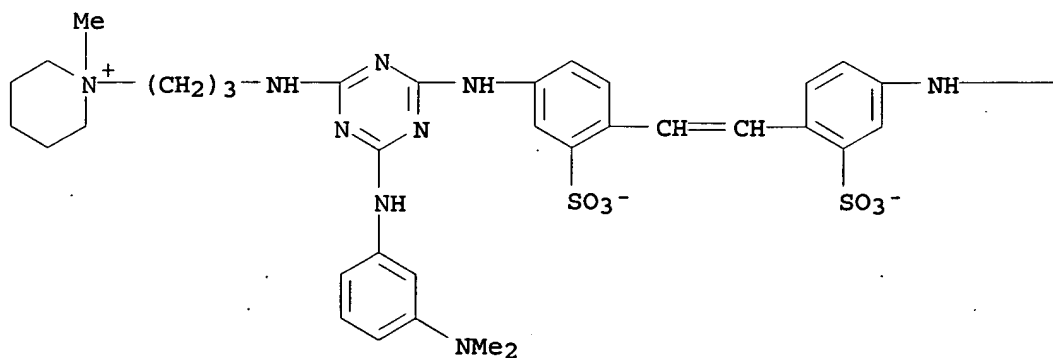


PAGE 1-B

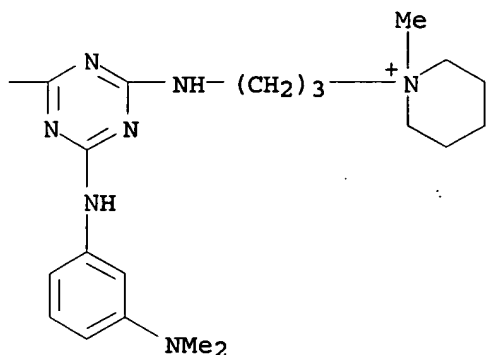


RN 28053-82-9 HCAPLUS
 CN Piperidinium, 1,1'-[vinylenebis[(3-sulfo-p-phenylene)imino[6-[m-(dimethylamino)anilino]-s-triazine-4,2-diyl]iminotrimethylene]]bis[1-methyl-, dihydroxide, bis(inner salt) (8CI) (CA INDEX NAME)

PAGE 1-A



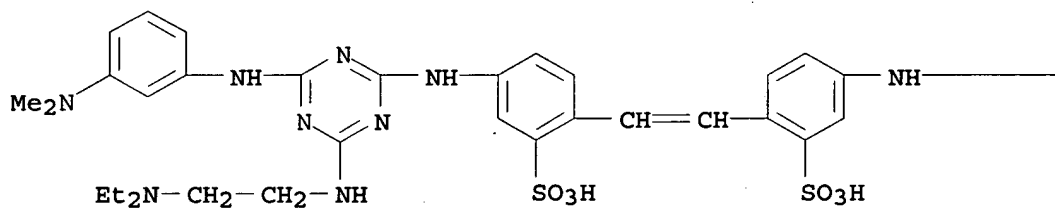
PAGE 1-B



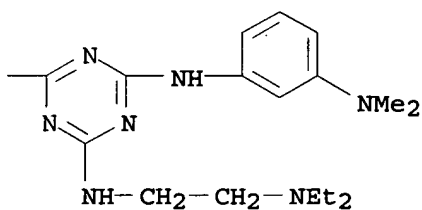
RN 28092-17-3 HCAPLUS

CN 2,2'-Stilbenedisulfonic acid, 4,4'-bis[[4-[[2-(diethylamino)ethyl]amino]-6-[m-(dimethylamino)anilino]-s-triazin-2-yl]amino]- (8CI) (CA INDEX NAME)

PAGE 1-A



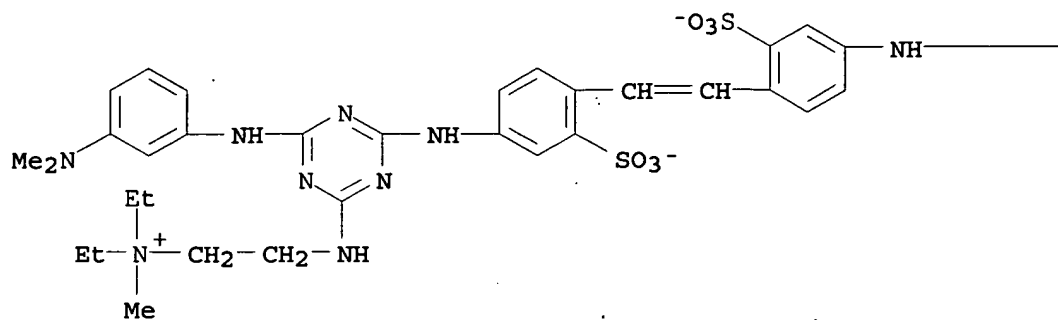
PAGE 1-B



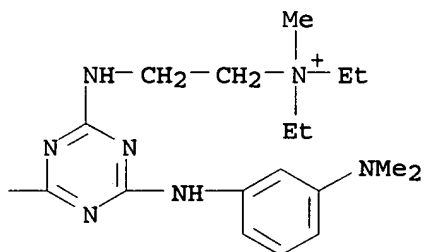
RN 28092-18-4 HCAPLUS

CN Ammonium, [vinylenebis[(3-sulfo-p-phenylene)imino[6-[m-(dimethylamino)anilino]-s-triazine-4,2-diyl]iminoethylene]]bis[diethylmethyl-, dihydroxide, bis(inner salt) (8CI) (CA INDEX NAME)

PAGE 1-A



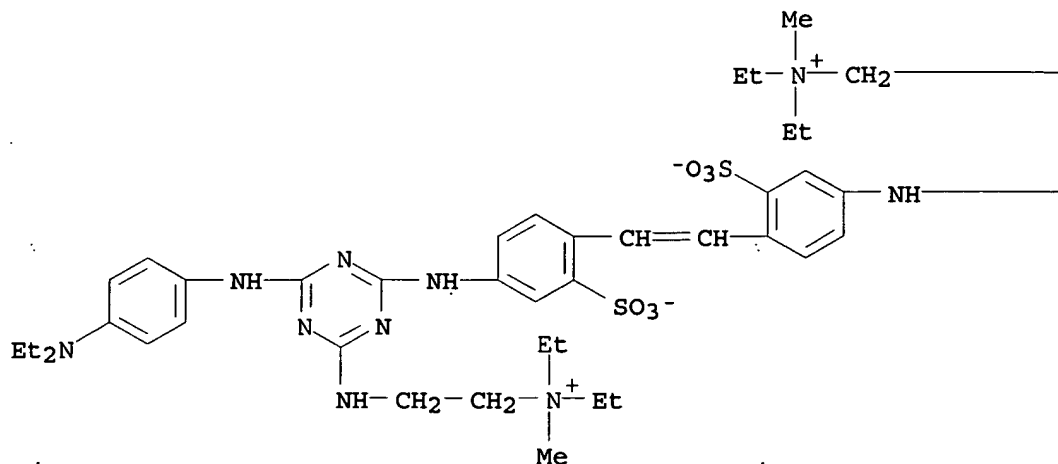
PAGE 1-B



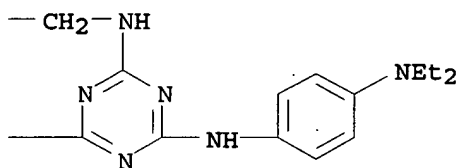
RN 28092-19-5 HCAPLUS

CN Ammonium, [vinylenebis[(3-sulfo-p-phenylene)imino[6-[p-(diethylamino)anilino]-s-triazine-4,2-diyl]iminoethylene]]bis[diethylmethyl-, dihydroxide, bis(inner salt) (8CI) (CA INDEX NAME)

PAGE 1-A

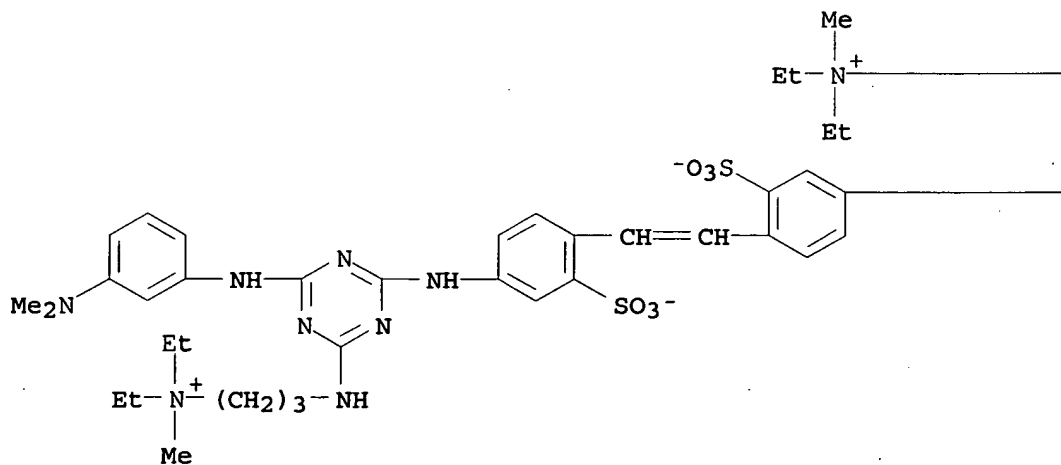


PAGE 1-B

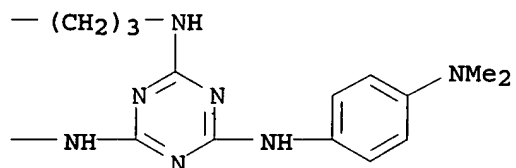


RN 28092-20-8 HCAPLUS
 CN Ammonium, [vinylenebis[(3-sulfo-p-phenylene)imino[6-[p-(dimethylamino)anilino]-s-triazine-4,2-diyl]iminotrimethylene]]bis[dietethylmethyl-, dihydroxide, bis(inner salt) (8CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

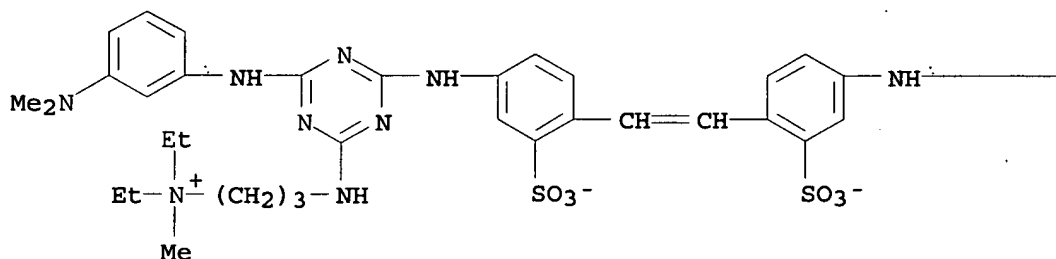


X

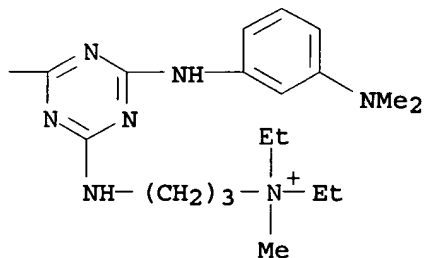
RN 28092-21-9 HCAPLUS

CN Ammonium, [vinylenebis[(3-sulfo-p-phenylene)imino[6-[m-(dimethylamino)anilino]-s-triazine-4,2-diyl]iminotrimethylene]]bis[d iethylmethyl-, dihydroxide, bis(inner salt) (8CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

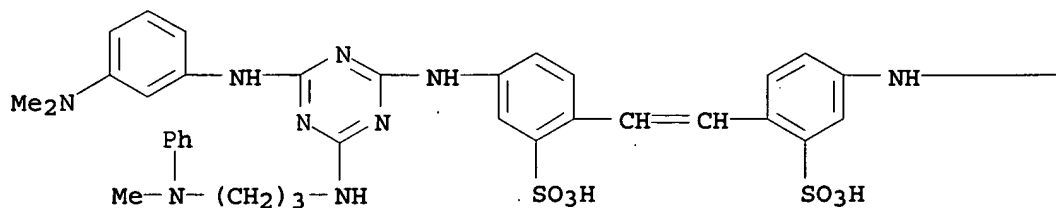


X

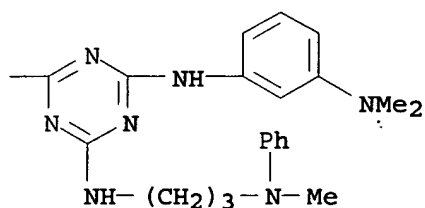
RN 28094-20-4 HCAPLUS

CN 2,2'-Stilbenedisulfonic acid, 4,4'-bis[[4-[m-(dimethylamino)anilino]-6-[[3-(N-methylanilino)propyl]amino]-s-triazin-2-yl]amino]- (8CI) (CA INDEX NAME)

PAGE 1-A



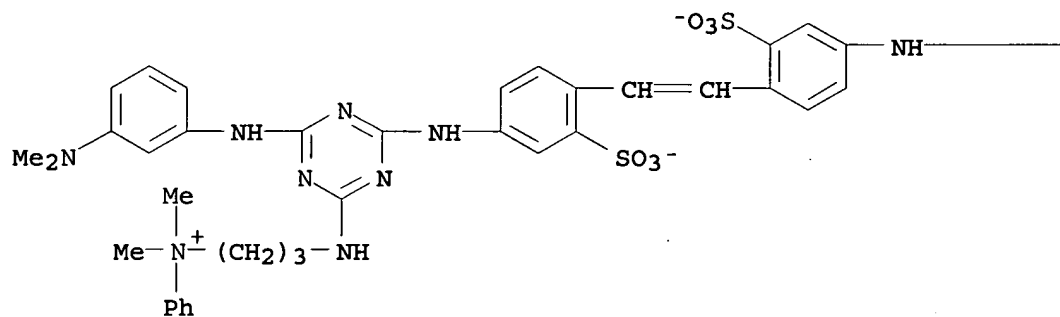
PAGE 1-B



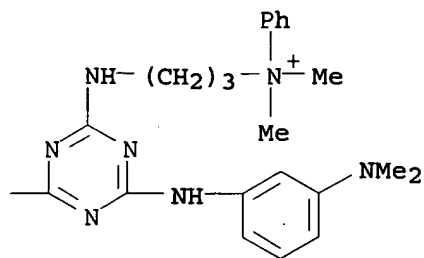
X

RN 28094-21-5 HCAPLUS
 CN Ammonium, [vinylenebis[(3-sulfo-p-phenylene)imino[6-[m-(dimethylamino)anilino]-s-triazine-4,2-diyl]iminotrimethylene]]bis[dimethylphenyl-, dihydroxide, bis(inner salt) (8CI) (CA INDEX NAME)

PAGE 1-A



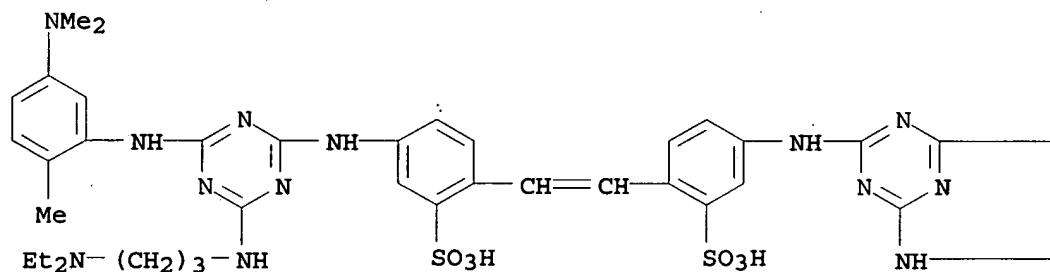
PAGE 1-B



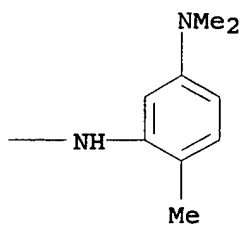
RN 28094-22-6 HCAPLUS

CN 2,2'-Stilbenedisulfonic acid, 4,4'-bis[[4-[[3-(diethylamino)propyl]amino]-6-[5-(dimethylamino)-o-toluidino]-s-triazin-2-yl]amino]-(8CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

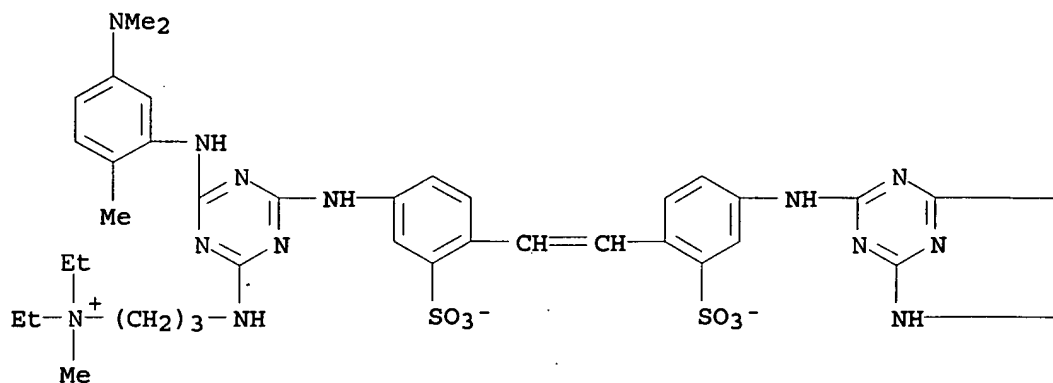


— (CH₂)₃—NEt₂

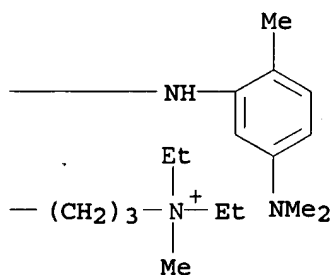
RN 28094-23-7 HCAPLUS

CN Ammonium, [vinylenebis[(3-sulfo-p-phenylene)imino[6-[5-(dimethylamino)-o-toluidino]-s-triazine-4,2-diyl]iminotrimethylene]]bis[diethylmethyl-, dihydroxide, bis(inner salt)] (8CI) (CA INDEX NAME)

PAGE 1-A



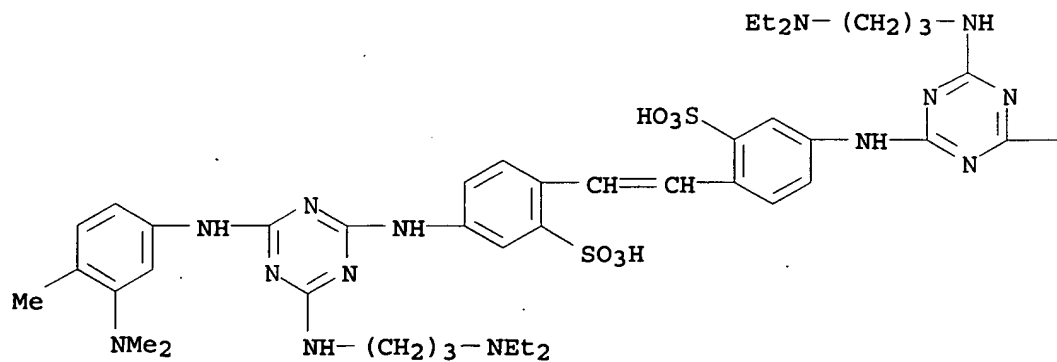
PAGE 1-B



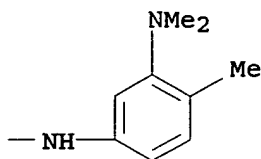
RN 28094-24-8 HCAPLUS

CN 2,2'-Stilbenedisulfonic acid, 4,4'-bis[[4-[[3-(diethylamino)propyl]amino]-6-[3-(dimethylamino)-p-toluidino]-s-triazin-2-yl]amino]-(8CI) (CA INDEX NAME)

PAGE 1-A



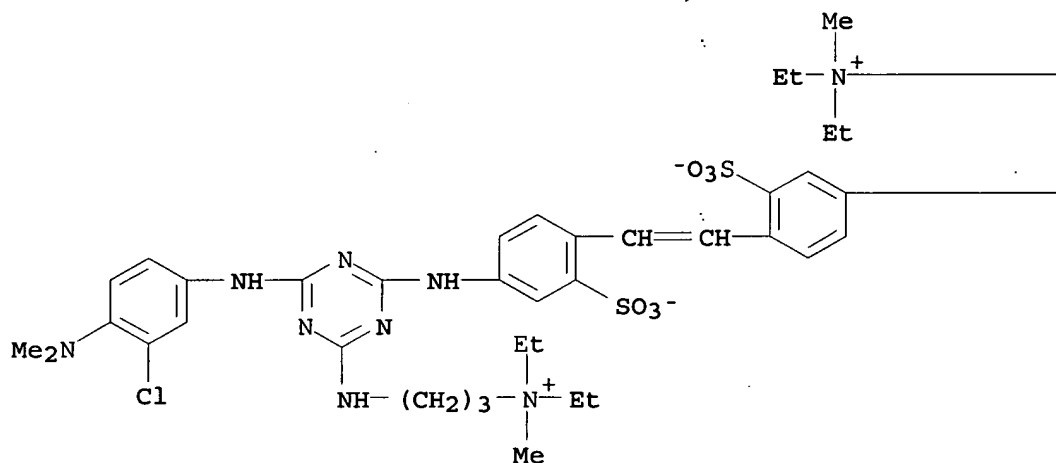
PAGE 1-B



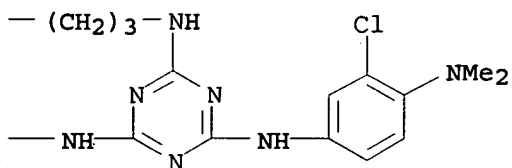
RN 28094-64-6 HCAPLUS

CN Ammonium, [vinylenebis[(3-sulfo-p-phenylene)imino[6-[3-chloro-4-(dimethylamino)anilino]-s-triazine-4,2-diyl]iminotrimethylene]]bis[d iethylmethyl-, dihydroxide, bis(inner salt) (8CI) (CA INDEX NAME)

PAGE 1-A



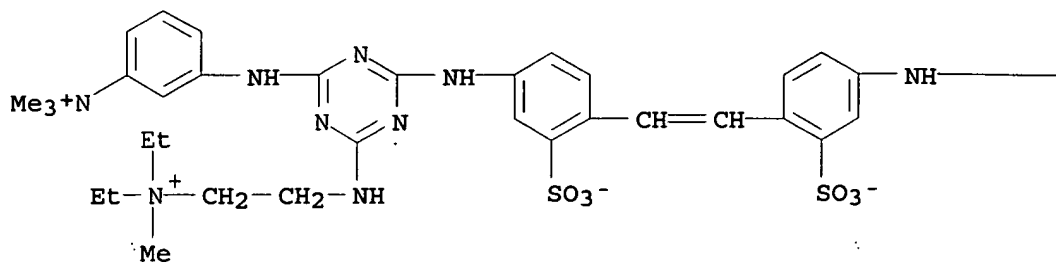
PAGE 1-B



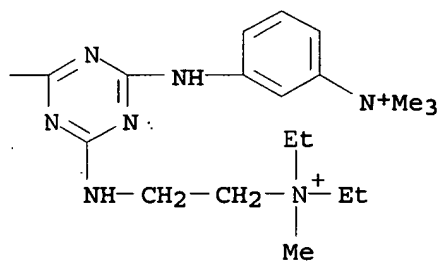
RN 28097-34-9 HCAPLUS

CN Ammonium, [vinylenebis[(3-sulfo-p-phenylene)imino[6-[m-(trimethylammonio)anilino]-s-triazine-4,2-diyl]iminoethylene]]bis[diethylmethyl-, dihydroxide, bis(inner salt), dichloride (8CI) (CA INDEX NAME)

PAGE 1-A

● 2 Cl⁻

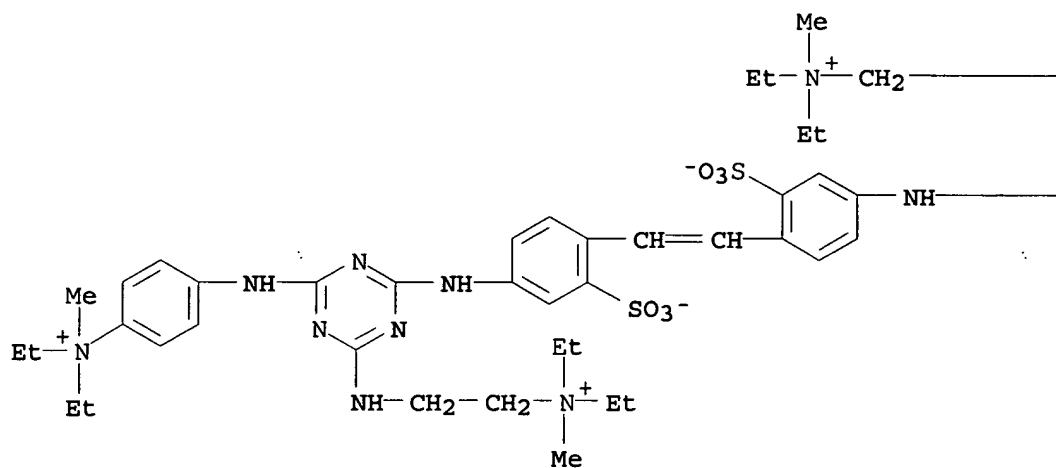
PAGE 1-B



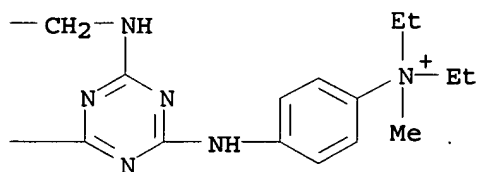
RN 28097-35-0 HCAPLUS

CN Ammonium, [vinylenebis[(3-sulfo-p-phenylene)imino[6-[p-(diethylmethylammonio)anilino]-s-triazine-4,2-diyl]iminoethylene]]bis[diethylmethyl-, dihydroxide, bis(inner salt), dichloride (8Cl) (CA INDEX NAME)

PAGE 1-A

● 2 Cl⁻

PAGE 1-B



RN 28097-36-1 HCAPLUS

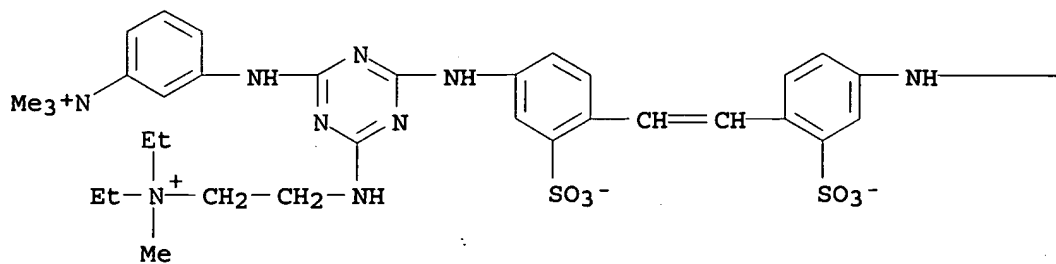
CN Ammonium, [vinylenebis[(3-sulfo-p-phenylene)imino[6-[m-(trimethylammonio)anilino]-s-triazine-4,2-diyl]iminoethylene]]bis[diethylmethyl-, dihydroxide, bis(inner salt), bis(methyl sulfate) (8CI) (CA INDEX NAME)

CM 1

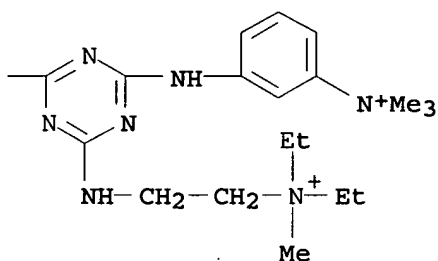
CRN 50570-72-4

CMF C52 H74 N16 O6 S2

PAGE 1-A



PAGE 1-B



CM 2

CRN 21228-90-0

CMF C H3 O4 S

Me-O-SO₃⁻

RN 28097-37-2 HCAPLUS

CN Ammonium, [vinylenebis[(3-sulfo-p-phenylene)imino[6-[p-(diethylmethylammonio)anilino]-s-triazine-4,2-diyl]iminoethylene]]bis[diethylmethyl-, dihydroxide, bis(inner salt), bis(methyl sulfate) (8CI) (CA INDEX NAME)

CM 1

CRN 50570-77-9

CMF C56 H82 N16 O6 S2

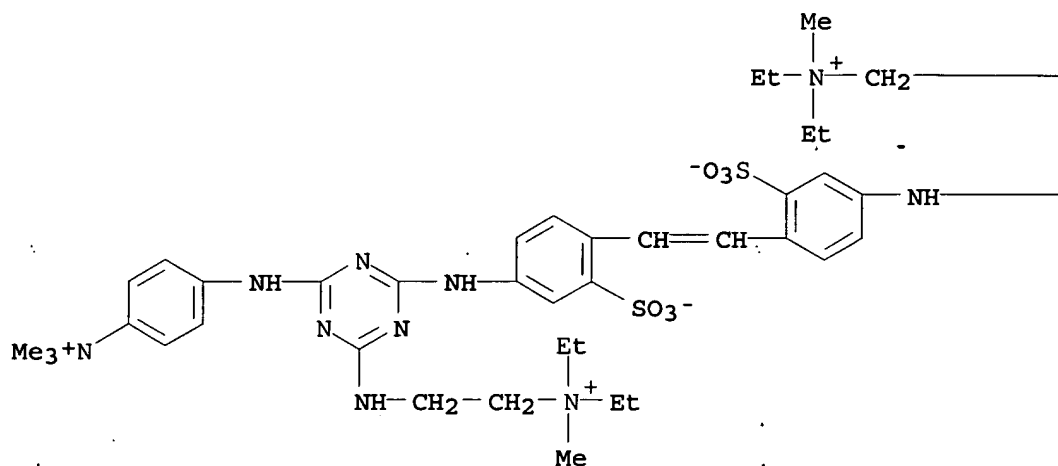
CC[N+](C)(CC)c1ccc(Nc2nc(Nc3ccc(cc3S(=O)(=O)[O-])C=Cc4ccc(cc4S(=O)(=O)[O-])NCC[N+](C)(CC)CC)cnc2Nc5ccc(cc5[N+](C)(CC)CC)cc1CC[N+]([Et])(Et)c1ccc(Nc2nc(NCC)nc(C)c2)cc1

CMF C H3 O4 S

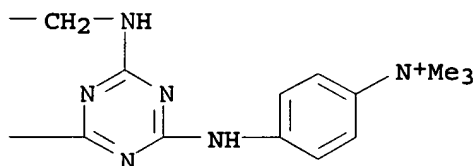
CN Ammonium, [vinylenebis[(3-sulfo-p-phenylene)imino[6-[p-(trimethylammonio)anilino]-s-triazine-4,2-diyl]iminoethylene]]bis[diethylmethyl-, dihydroxide, bis(inner salt), bis(methyl sulfate) (8CI) (CA INDEX NAME)

CMF C52 H74 N16 06 S2

PAGE 1-A



PAGE 1-B



CM 2

CRN 21228-90-0

CMF C H3 O4 S

Me-O-SO3-

RN 28143-53-5 HCAPLUS

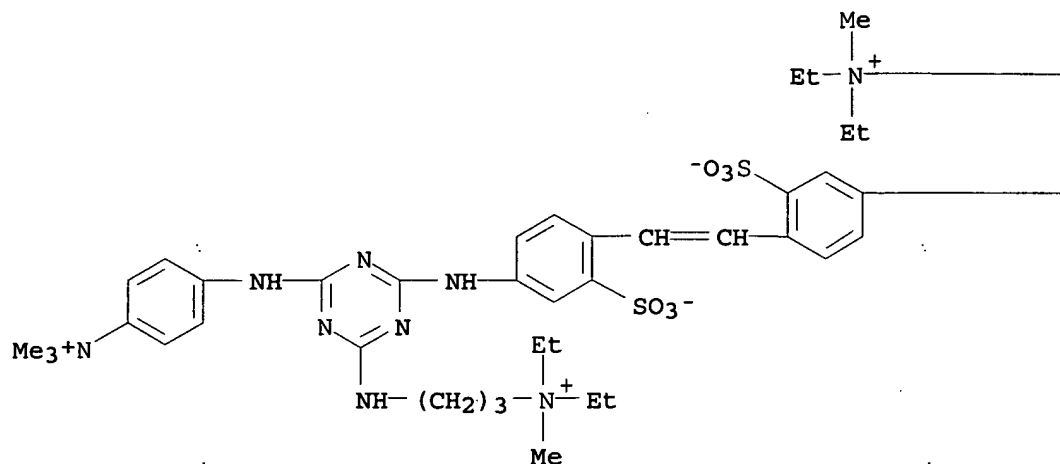
CN Ammonium, [vinylenebis[(3-sulfo-p-phenylene)imino[6-[p-(trimethylammonio)anilino]-s-triazine-4,2-diyl]iminotrimethylene]]bis[diethylmethyl-, dihydroxide, bis(inner salt), bis(methyl sulfate) (8CI) (CA INDEX NAME)

CM 1

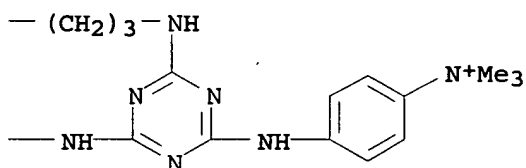
CRN 50570-76-8

CMF C54 H78 N16 O6 S2

PAGE 1-A



PAGE 1-B



CM 2

CRN 21228-90-0

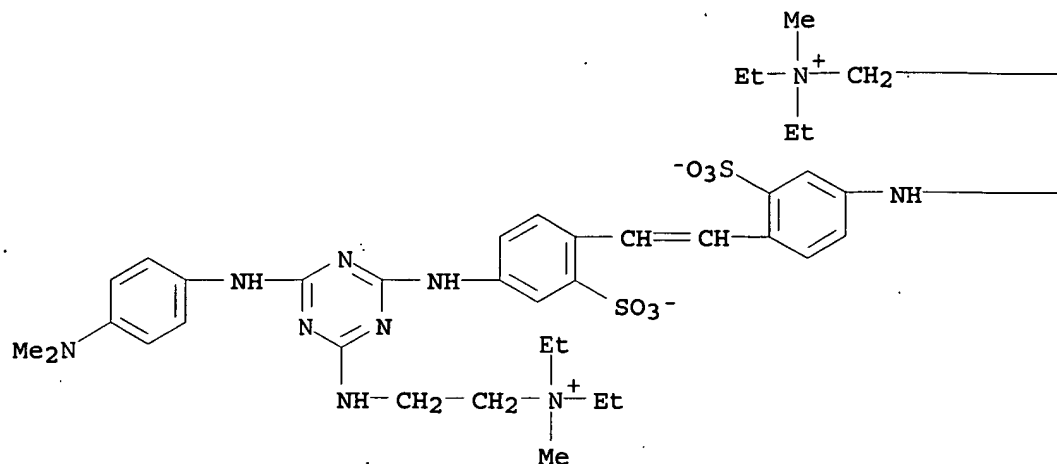
CMF C H3 O4 S

Me-O-SO₃⁻

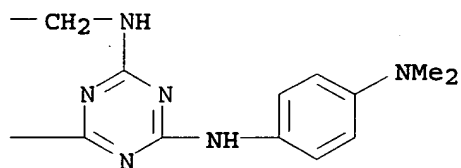
RN 28270-25-9 HCAPLUS

CN Ammonium, [vinylenebis[(3-sulfo-p-phenylene)imino[6-[p-(dimethylamino)anilino]-s-triazine-4,2-diyl]iminoethylene]]bis[diethylmethyl-, dihydroxide, bis(inner salt) (8CI) (CA INDEX NAME)

PAGE 1-A

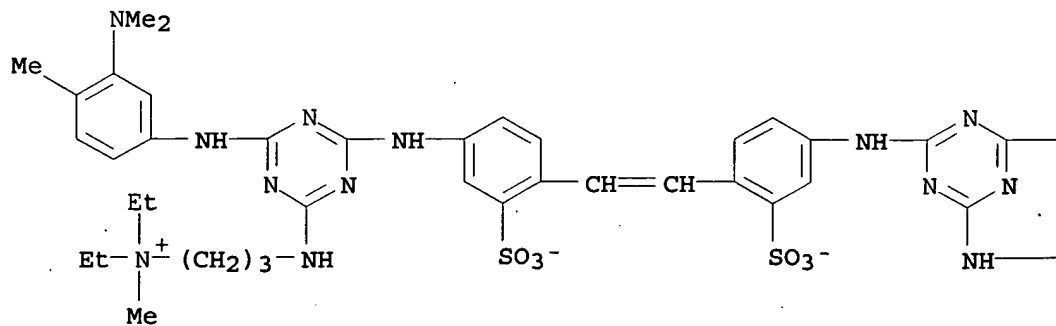


PAGE 1-B

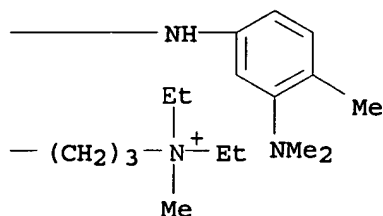


RN 28270-49-7 HCAPLUS
 CN Ammonium, [vinylenebis[(3-sulfo-p-phenylene)imino[6-[3-(dimethylamino)-p-toluidino]-s-triazine-4,2-diyl]iminotrimethylene]]bis[diethylmethyl-, dihydroxide, bis(inner salt) (8CI) (CA INDEX NAME)]

PAGE 1-A



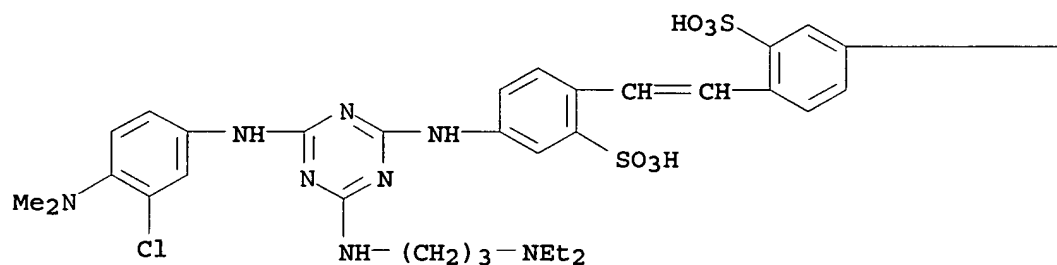
PAGE 1-B



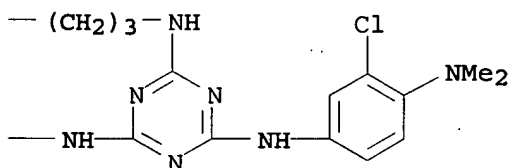
RN 28270-51-1 HCAPLUS

CN 2,2'-Stilbenedisulfonic acid, 4,4'-bis[[4-[3-chloro-4-(dimethylamino)anilino]-6-[[3-(diethylamino)propyl]amino]-s-triazin-2-yl]amino] - (8CI) (CA INDEX NAME)

PAGE 1-A

Et₂N—

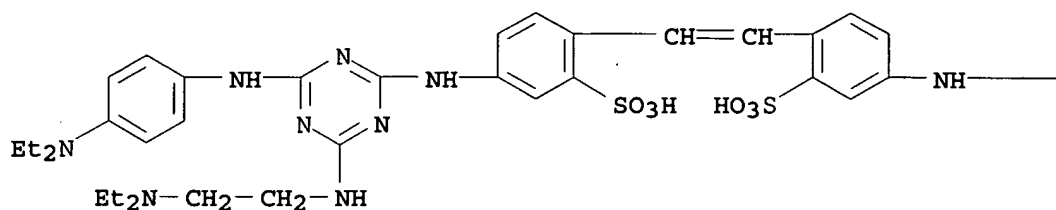
PAGE 1-B



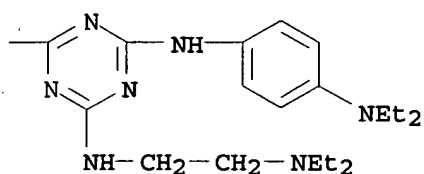
RN 31858-19-2 HCAPLUS

CN 2,2'-Stilbenedisulfonic acid, 4,4'-bis[[4-[p-(diethylamino)anilino]-6-[[2-(diethylamino)ethyl]amino]-s-triazin-2-yl]amino] - (8CI) (CA INDEX NAME)

PAGE 1-A



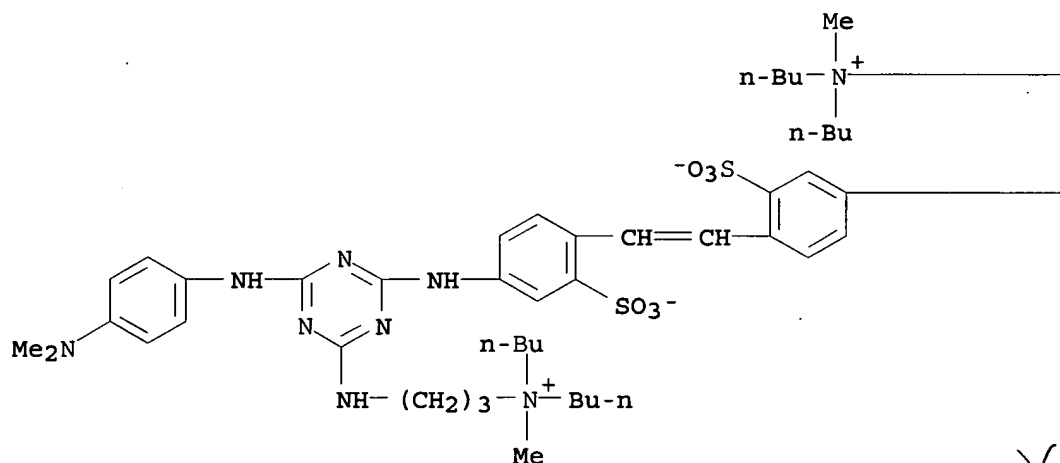
PAGE 1-B



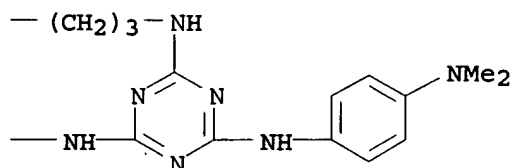
RN 31858-20-5 HCAPLUS

CN Ammonium, [vinylenebis[(3-sulfo-p-phenylene)imino[6-[p-(dimethylamino)anilino]-s-triazine-4,2-diyl]iminotrimethylene]]bis[dibutylmethyl-, dihydroxide, bis(inner salt) (8CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC C07D; D06L
 CC 40 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)
 IT 25864-73-7P 28053-38-5P 28053-39-6P
 28053-79-4P 28053-80-7P 28053-81-8P
 28053-82-9P 28089-71-6P 28089-72-7P 28092-15-1P
 28092-16-2P 28092-17-3P 28092-18-4P
 28092-19-5P 28092-20-8P 28092-21-9P
 28094-16-8P 28094-17-9P 28094-18-0P 28094-19-1P
 28094-20-4P 28094-21-5P 28094-22-6P
 28094-23-7P 28094-24-8P 28094-64-6P
 28097-31-6P 28097-32-7P 28097-33-8P 28097-34-9P
 28097-35-0P 28097-36-1P 28097-37-2P
 28143-52-4P 28143-53-5P 28143-73-9P
 28270-25-9P 28270-48-6P 28270-49-7P
 28270-50-0P 28270-51-1P 28273-87-2P 28425-76-5P
 29519-10-6P 29519-11-7P 31858-19-2P 31858-20-5P
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (preparation of)

L37 ANSWER 10 OF 10 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1969:38907 HCAPLUS
 DOCUMENT NUMBER: 70:38907
 TITLE: Substituted 4,4'-bis(triazinylamino)stilbenes
 PATENT ASSIGNEE(S): Geigy, J. R., A.-G.
 SOURCE: Brit., 6 pp.
 CODEN: BRXXAA
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 1129548		19681009	GB 1967-29800	196706 28
CH 474601			CH	
FR 1529366			FR	
US 3546218		19701208	US	196606 29
US 3676339		19720711	US	197004 16
PRIORITY APPLN. INFO.:			US	196606 29

GI For diagram(s), see printed CA Issue.

AB I, where X is Y(CH₂)₃NH (Q), are fluorescent whitening agents. Thus, 71 g. (HOCH₂CH₂)₂NCH₂CH₂CH₂NH₂ (II) was added with stirring to a slurry of 150 g. I (X = Cl, R = H) (III) in 1200 ml. H₂O, the mixture heated to 90°, the pH, which decreased to 9.5-10, maintained at 10.5-11 by adding 16 g. 50% NaOH, the mixture cooled to room temperature, the mother liquor decanted, 1200 ml. H₂O and 300 g. NaCl added, the solids ground in a wet slurry with 400 ml. 25% aqueous NaCl, acidified to pH 2 with 37% HCl, filtered, washed acid-free and vacuum-dried to give 120 g. light yellow I [X = Q, Y = (HOCH₂CH₂)₂N (Z), R = H]. Similarly, other I (X = Q) were prepared (Y and R given): Z, SO₃H; Me₂N, H; morpholino, NMeCH₂CH₂CH₂NH₂, H.

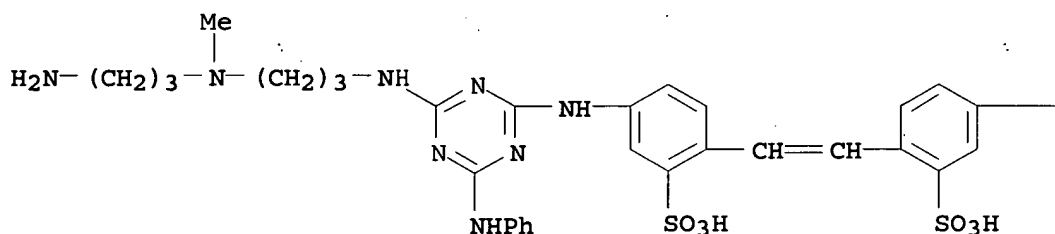
IT 20982-10-9P

RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of)

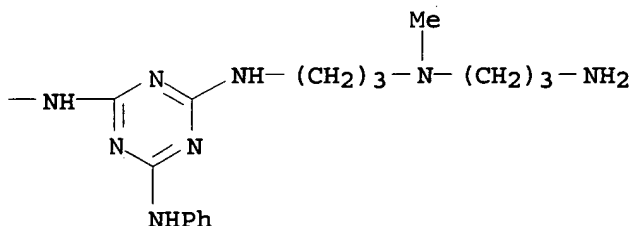
RN 20982-10-9 HCAPLUS

CN 2,2'-Stilbenedisulfonic acid, 4,4'-bis[[4-[[3-[(3-aminopropyl)methylamino]propyl]amino]-6-anilino-s-triazin-2-yl]amino]- (8CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC C07D

CC 40 (Dyes, Fluorescent Brightening Agents, and Photosensitizers)

IT 19523-47-8P 19523-49-0P 19643-44-8P 20982-06-3P

20982-10-9P 22301-97-9P

RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of)

=>